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Scouting and Patrolling

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U.S. Marine Corps

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FOREWORD

The evolution of modern warfare prompts the need for advanced and modernized tactics which provide Marines with enhanced scouting and patrolling procedures. Essential in meeting this requirement was the integration of Marine Corps Interim Publication (MCIP) 3-02.1i, *Combat Hunter* with Marine Corps Tactical Publication (MCTP) 3-01A, *Scouting and Patrolling*. As witnessed during Operations Iraqi Freedom and Enduring Freedom, the combat tested tactics, techniques, and procedures (TTP) contained herein have matured into effective tools, which—when paired with enhanced scouting techniques and a hunter's mindset to "always be the hunter, never the prey"—are highly effective in conducting patrols. This mindset continues to be taught throughout the training and education continuum for both officers and enlisted Marines alike, from entry-level training to professional military education.

Scouting and patrolling skills are an essential part of all tactical operations which assist the commander in developing a deeper understanding of the operational environment, locating threats, determining enemy or adversary intentions, and developing effective methods for targeting them. Marines must be able to make rapid and effective decisions, as well as identify threats from inside or outside of friendly areas. All Marines, regardless of military occupational specialty, should be capable of effectively participating in basic patrolling missions. Therefore, the TTP included herein are applicable across the Marine air-ground task force.

This publication supersedes MCTP 3-01A, *Scouting and Patrolling*, dated 17 April 2001, eratum dated 2 May 2016, and cancels MCIP 3-02.1i, *Combat Hunter*, dated 4 February 2011.

Reviewed and approved this date.

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PART I. PATROLLING

CHAPTER 1.
PLANNING

DEFINITION OF A PATROL

Patrols are employed by commanders for many purposes, such as gathering information, providing security, or engaging the enemy. Patrols enable the commander's decision-making process and knowledge of the operational environment, and can reduce enemy or threat capabilities. A patrol is a small unit organization formed to accomplish specific tactical tasks. The mission to conduct a patrol may be given to a fire team, squad, platoon, or company-sized element. All Marine Corps units can be task-organized to conduct patrols and should be proficient in basic patrolling skills.

PURPOSE OF PATROLLING

A commander must have a consistently present and active means of protecting friendly forces and gaining information on threats. Patrols provide an important means of gaining information, and are used to destroy enemy installations, capture personnel and equipment, perform security tasks, or prevent threats from gaining information. Effective patrolling is particularly important in modern warfare because units have larger areas of operations (AOs) than they did historically, and can be threatened from all directions. As distances between units increase, more patrolling becomes necessary to prevent infiltration by small enemy units, as well as to maintain contact with adjacent friendly units.

INTELLIGENCE

Active patrolling supports the intelligence collection process to locate the threat and gather information on its disposition, strength, morale, and weapons, as well as to gather and confirm information about the terrain and the patterns of life in the local populace.

Intelligence Cycle

Regardless of their assigned missions, patrols collect information that feed the intelligence cycle as they move throughout the environment (refer to figure 1-1). The intelligence cycle consists of six sequential, yet interdependent, steps:

- Planning and direction.
- Collection.
- Processing and exploitation.
- Production.
- Dissemination.
- Utilization.

The intelligence cycle is a circular process that continually responds as information is collected, processed and exploited, produced, disseminated, and utilized. Patrols—properly tasked, trained, and resourced with special tools and mission-specific enablers—provide a collection capability that is essential to developing the intelligence picture, supporting the intelligence cycle, and reducing uncertainty about the operational environment. Scouting and patrolling activities are especially critical in the collections, processing and exploitation phases of the intelligence cycle.

Intelligence Requirements

Intelligence requirements are initially developed during the planning process and passed down to subordinate unit commanders or specialized collection assets for collection. Subordinate commanders may generate their own intelligence requirements to assist in answering their higher headquarters (HHQ) intelligence requirements. Requirements fall under two categories; intelligence requirements and priority intelligence requirements (PIRs). Intelligence requirements cover the entire spectrum of information concerning threats and the battlespace.

Most intelligence requirements are questions generated by the staff during planning or operations which the commander does not feel necessary to be answered before making decisions.
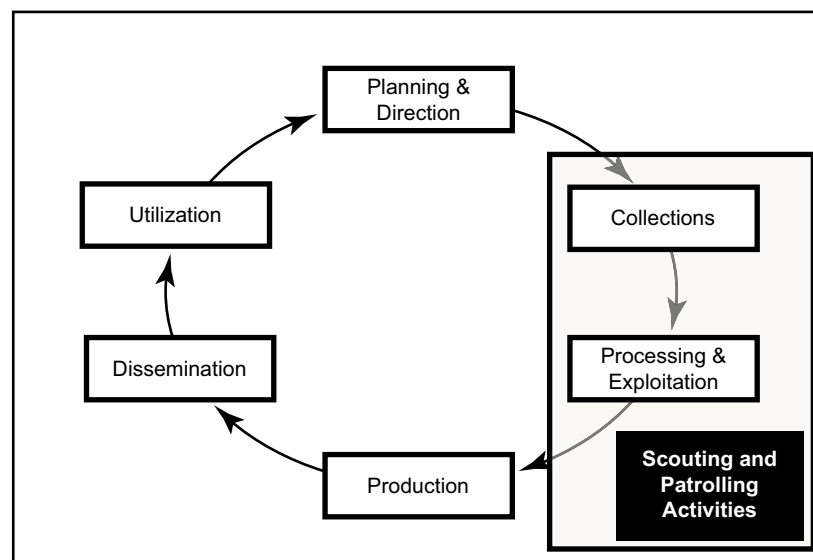
Figure 1-1. Scouting and Patrolling Activities within the Intelligence Cycle.

Time and the limited availability of intelligence collection assets mean that a command can rarely answer all of its intelligence requirements. Due to these constraints, it is important for the unit commander to focus the intelligence collection effort on the intelligence requirements that are critical to making decisions. These intelligence requirements are designated as PIRs because of their importance to the commander in making accurate and timely tactical decisions. Priority intelligence requirements may change or shift in level of importance over the course of operations as more intelligence requirements are satisfied or new ones are uncovered, requiring further collection. It is important to note that only the unit commander may designate PIRs.

Generally, the difference between a PIR and an intelligence requirement is that a commander must have the answer to a PIR to make a decision. Few PIRs are in effect at once; therefore, the lowest ranked PIR takes precedence over the highest ranked intelligence requirement. While there are only a few PIRs, there may be many intelligence requirements. Like PIRs, intelligence requirements are prioritized to support focused, effective intelligence planning and operations. Both requirements have the following characteristics. Each PIR or intelligence requirement—

- Asks only one question.
- Focuses on specific facts, events, or activities concerning the threat or the battlespace.
- Is tied to mission planning, decision making, and execution.
- Provides a clear, concise statement of what intelligence is required.
- Contains geographic and time elements to limit the scope of the requirement.

For additional information on intelligence requirements, refer to Marine Corps Warfighting Publication (MCWP) 2-10, *Intelligence Operations* or Marine Corps Tactical Publication (MCTP) 2-10A, *MAGTF Intelligence Collection*.

Intelligence Collection

Intelligence is collected in a variety of ways; however, most information comes in reports from subordinate units, especially patrols. While patrols have a variety of tactical tasks and purposes, gathering combat information is an important aspect of every patrol since every Marine is expected to be an intelligence collector. Regardless of a patrol's type or mission, every patrol should have collateral tasks for intelligence collection. Collection efforts are most useful when the patrols are provided with specific or general collection tasks prior to planning which are derived from intelligence requirements. Collection requirements for patrols should—

- Focus on collecting against PIRs.
- Ensure collections avoid redundancy and focus on relevant, useful information.
- Report on a "by exception" basis (i.e., patrols only send reports when certain events occur or thresholds are reached, ensuring routine information does not obscure critical information).
- Simplify and streamline reporting procedures.
- Establish realistic deadlines and minimize the number and frequency of reports.
- Ensure a two-way flow of information and establish procedures for reconciliation and validation of information content.

The ability to maximize the observation and reporting skills of individual Marines is critical to successful patrols. Every patrol member observes critical information during every patrol; they successfully capture those observations because of proper training and disciplined debriefing techniques. It is the responsibility of the unit's commander to ensure that all information gained from patrols is integrated into the intelligence cycle and the common tactical picture (CTP).

Chapter 11 discusses individual skills patrol members should possess. Chapter 10 discusses operations within populated areas.

Marines possessing basic language skills, augmented with specialized enablers such as interpreters, assist in engaging the local populace and conducting tactical questioning of detainees. Engaging the local populace gives a patrol access to information about the environment, patterns of life, and potential threats and sources of instability. Tactical questioning may lead the patrol to subsequent actions or provide insight into future threat activity. Other enablers, such as organic unmanned aircraft systems (UASs), can extend a patrol's reach while simultaneously offering protection, early warning of threats, and security from observation or fires.

TYPES OF PATROLS

Patrols are categorized by both their mission and their principal means of movement. Patrols are separated into two major types by mission—combat or reconnaissance. Irrespective of their purpose or movement technique, patrols are conducted to gain information about the battlespace, to identify threats, and to destroy them or deny them either freedom of action or maneuver.

Gathering information is an implied task for every patrol in any environment. The unique planning considerations for each type of patrol are discussed in detail in chapter 3.

Combat Patrols

Combat patrols seek to either engage enemy forces in combat, deny them from achieving tactical effects, or facilitate the coordination between friendly and partnered forces. The purpose of combat patrols may include the following:

- Raid.
- Ambush.
- Security.
- Contact.

Raid. A raid is a limited objective attack ending with a planned withdrawal that can be conducted as the purpose of a combat patrol or as a part of one. Raids are detailed and typically require a high degree of intelligence, with increased planning and rehearsal time in which to execute it. Examples of raid patrols include the destruction of small enemy forces, lightly guarded facilities or equipment, or the capture of personnel or materials for intelligence purposes.

Ambush. An ambush is a surprise attack from concealment on a moving or temporarily halted enemy target, which may consist of closing with and destroying the enemy through close combat or attacking by fire. Ambushes rely on surprise and are conducted with coordinated, violent fires which seek to achieve decisive effects in the opening moments of the engagement.

Security. Security patrols provide several functions. They can provide all-around unit security to a moving or stationary unit (i.e., front, flanks, and rear), routes, static positions, and facilities. Security patrols can also provide early warning of threat attacks, disrupt threat reconnaissance efforts, and protect against surprise attacks. Security patrols are essential to offensive, defensive, and stability activities in any type of military operation.

Contact. Contact patrols are tasked to gain and/or maintain contact (i.e., physical or visual) with threat or friendly forces or to the front, flanks, or rear of the unit. In many operational environments, contact with friendly forces could refer not only to military units, but also to engagement with local civic leadership, nongovernmental organizations, partner forces, or others.

Reconnaissance Patrols

Reconnaissance patrols gather information about the threat, terrain, or resources. Relying on stealth rather than combat strength, they gather this information and fight only when necessary to complete the mission or for self-defense. The distance covered by reconnaissance patrols varies based on the terrain, form of movement, and mission. The rifle squad is ideally suited for reconnaissance patrol missions because of its relatively small size and its familiarity in working together. Reconnaissance patrols support the following three reconnaissance missions:

- Zone reconnaissance.
- Area reconnaissance.
- Route reconnaissance.

Zone Reconnaissance. Zone reconnaissance is a directed effort to obtain detailed information concerning all routes, obstacles (including chemical or radiological contamination), terrain, and threat forces within a defined zone. A zone reconnaissance is typically assigned when the threat situation is vague or when information concerning improved, unimproved, or cross-country trafficability is desired.

Area Reconnaissance. An area reconnaissance is a directed effort to obtain detailed information concerning the terrain or threat activity within a prescribed area, such as a town, mountain pass, or dominant terrain that may surround critical areas such as bridges, major routes, or other facilities and areas critical to operations. An area reconnaissance is often conducted as part of—or within— a larger unit's zone reconnaissance to collect detailed information regarding one or more specific areas, though it can also be an independent mission. An area reconnaissance typically focuses on specific terrain features, facilities, or threat forces within a zone.

Route Reconnaissance. A route reconnaissance is a directed effort to obtain detailed information on a specified route or general axis of movement, as well as on all terrain from which the threat could influence movement along it. It provides new or updated information on route conditions (such as obstacles), calculates the military load capacity of bridges, assesses the throughput capacity of tunnels, fords, and ferry sites, and evaluates enemy or civilian activity along the route.

PATROL MOVEMENT TECHNIQUES

A patrol's principal means of movement influences planning, route selection, flexibility, logistical requirements, and firepower available. There are various means of movement that may be available for patrols. For example, a patrol may be mounted in vehicles or watercraft when it begins, and then dismount to continue on foot. These techniques may be required when time is a factor, threat locations prevent moving by foot, longer distances are to be covered, or when terrain considerations facilitate the need to preserve Marines physically. Patrol movement can be by foot, mounted, or waterborne.

Foot
Movement by foot is the most common means, offering advantages in stealth and versatility across various terrain and providing more thorough observation within the limits of range. Foot patrols are generally not inhibited by weather. However, they do have inherent disadvantages. Foot patrols travel slowly and carry limited quantities and types of equipment and supplies, making their range relatively restricted.

Mounted
Where open terrain and road networks permit, mounted patrols can overcome the inherent disadvantages of foot patrols. Mounted patrols move faster, which allows them to keep pace with the movement of other highly mobile or mechanized forces. However, mounted patrols are restricted to certain types of terrain and may be forced to bypass areas that may be advantageous to or occupied by enemy forces. Commanders assigning mounted patrols should ensure patrol leaders plan and rehearse actions that employ a combination of both mounted and foot-mobile elements, especially when encountering known or suspected danger areas and obstacles.

Waterborne
Waterborne patrols can cover coastal access points, port facilities, large lakes, rivers, streams, canals, and other inland waterways. A waterway is used as a movement route and waterborne craft are used as a method of entry to patrol an objective area. While waterways may serve as patrol routes, when routes through waterways are limited, movement becomes more predictable and possibly canalized. Waterborne patrols may be limited by water currents, tides, depths, widths, obstacles and their ability to contend with terrain that controls their movement. Like mounted patrols, waterborne patrols should be prepared to employ foot-mobile maneuver elements ashore, with the watercraft serving as a base of fire and a platform for extraction.

TENETS OF PATROLLING

All patrols must have a clearly defined objective, and each objective must have a specific focus and associated tasks. Patrols may focus on the threat, the security of the unit, the security of the population, or collecting information about the environment. Regardless of the objective and focus of individual patrols, the tenets of successful patrolling endure and apply both across the Marine air-ground task force (MAGTF) and across the spectrum of military operations. Unit

leadership at all levels must conduct focused training, inspect pre-mission preparations, assess operational effectiveness, and base corrections on these tenets.

Detailed Planning

Every portion of the patrol must be planned, all possible contingencies considered, individual and sub-element tasks assigned, and special equipment identified. At the small-unit level, commanders must develop a comprehensive patrolling plan that addresses the multiple tactical and informational demands within the battlespace while maintaining the capacity to respond to contingencies, which may include the patrol being compromised, changes to ingress or egress routes, casualty evacuation (CASEVAC), request for supporting fires, or emergency extraction. Commanders must manage and prioritize collection and targeting efforts, which should guide the development of a deliberate patrolling plan. Planning prioritizes specific informational and tactical demands. It also aligns priorities with available forces, the amount of battlespace requiring patrol coverage, and the resources available to respond to contingencies. Patrol planning is discussed later in this chapter.

Productive Rehearsals

Patrol members rehearse each phase of a patrol, beginning with actions in the objective area and working backward toward departing from friendly lines. Whenever possible, patrol rehearsals should be held on similar terrain and under similar environmental conditions as the objective area. Contingency rehearsals, such as immediate action drills, must be detailed and thorough enough to ensure universal understanding within the patrol, as well as the supporting HHQ. Commanders at the lower echelons must also rehearse contingency plans within their respective combat operations centers (COCs). Watch officers and COC personnel must develop battle drills for contingency responses that include known roles and functions, required HHQ and adjacent/supporting unit coordination, and tactical communication/information systems required for coordination.

Thorough Reconnaissance

Maps, imagery, photographs, recent patrol debriefs, and intelligence briefings from counterintelligence (CI)/human intelligence (HUMINT) detachments, signals intelligence, and any other organic or supporting intelligence sources supplement the reconnaissance effort prior to executing a patrol. Organic small unmanned aircraft can provide a vantage from which to reconnoiter a patrol route prior to departing friendly lines and during execution, as well as to identify key terrain, objective areas, and danger areas.

Positive Control

The patrol leader must maintain positive control of the patrol. This begins during patrol planning and preparation. For small detachments operating alone, planning and executing well-rehearsed immediate action and battle drills are key to successful execution. The patrol leader must supervise patrol preparations, either directly or by delegation. It is important to "isolate" patrol members, removing them from their normal duties or other demands to allow them to concentrate on patrol preparation and ensure the patrol is well rested prior to departing friendly lines. The assistant patrol leader should supervise pre-combat checks while the patrol leader continues with mission planning. The patrol leader should personally supervise pre-combat inspections.

All-Around Security

Security is continuous throughout the conduct of a patrol. Patrols typically operate away from other friendly forces, and can therefore be vulnerable to attack. During execution, the patrol maintains all-around security, varies its routes, and avoids patterns. The patrol must be particularly attentive near the end when there is a natural tendency to relax vigilance.

Commanders must include plans for reinforcing a patrol by force or with fires during all phases of the patrol. All information collected for intelligence purposes should be protected from unauthorized disclosure; for example, restrict access to information obtained from patrol debriefs.

Every Marine a Collector

During any patrol, Marines make observations about the environment. It is important for all Marines to understand that their observations are not only critical to identifying threats, but also to understanding the environment. These observations (whether directed or not) must be collected after any patrol. They should not be limited only to observations made during the patrol, but should also include observations made in secure (or rear) areas where threats may be present, such as forward operating bases, airfields, and port facilities.

PLANNING CONSIDERATIONS

The mission assigned to a patrol must be clear and oriented toward one objective, with a specific task and purpose. More than one primary objective or an indefinite mission invites confusion, casualties, and greater potential for failure.

Route Planning

Route planning is a continuous and critical aspect of patrol planning. It begins with the map and is enhanced through reconnaissance and the use of known intelligence to support planning. Routes should always be carefully selected in a manner that serves the successful completion of the patrol's mission and tactical tasks. Intelligence regarding the threat's activities, including the use of explosive hazards (e.g., mines, explosives, and explosive booby traps or improvised explosive devices [IEDs]), must be closely studied.

Prior to Movement. At minimum, the patrol leader, assistant patrol leader, and navigator should conduct a map reconnaissance prior to a patrol while seeking any supporting intelligence that may assist in route planning. Ideally, and as time permits, the patrol's leadership should seek to use a combination of reconnaissance methods to further increase situational awareness. Using a combination of reconnaissance methods assists them to select the route according to available cover, concealment, and any indicated threat activity. These methods include—but are not limited to—the following:

- Map reconnaissance.
- Leader's reconnaissance.
- Aerial reconnaissance by either manned or unmanned aircraft.
- Aerial photographs or video.

When conducting a map reconnaissance, Marines should carefully study the terrain to be traversed while paying close attention to the general features, streams, and ridges to be crossed, and their relation to the general direction to be taken. These items can have a particularly important impact on the patrol's ability to perform its tasks or on its ability to avoid detection. As route planning is conducted, the patrol leader must envision how the selected route will affect the unit's ability to move. This study should additionally consider movement under both high and limited visibility, the equipment to be carried, the time available to conduct the patrol, known danger areas, targeting known or suspected threats, alternate routes, potential landing zones for aircraft, and other critical factors that may affect the route selected.

The patrol leader should make note of terrain features and landmarks along the proposed route and rely on notes for guidance. Additionally, the information for each change of direction should be determined at the start. Finally, the location of unit boundaries and observation and listening posts should be learned, as well as the general location of other friendly units. Man-made and natural obstacles should be avoided, as they will slow progress and the overall success of the mission. If possible, the local populace should be used as a source of intelligence. When returning to friendly lines, patrols should avoid using the same route used to depart friendly lines at the start of the patrol.

En Route. The actual advance en route is a series of movements from one observation point to the next. The distance and route depend on the cover and terrain. Patrols should assess the cover, terrain, and any threat or civilian activity to determine whether to modify the approach or return routes. Unless the mission requires it, patrols should avoid danger areas (e.g., houses, villages, potential assembly or bivouac areas, roads, and streams) that may give away their position. When danger areas must be reconnoitered, a covered approach and return should be chosen, and entry or passage should be made as quietly and quickly as possible. Other members of the patrol should cover the approach and return with observation and fires.

During the patrol, the unit may be required to move to an observation point to visually reconnoiter the terrain for movement and select, confirm, or modify the tentative route. It may be necessary to make wide detours around open spaces or areas containing enemy patrols or other activity.

Under Limited Visibility. When planning for patrols conducted under limited visibility, the patrol leader should study the ground in detail under high visibility conditions. The patrol leader should consider the meteorological and solar/lunar data, and how they will affect the patrol's ability to follow the route to accomplish the mission. Under limited visibility, the route of advance should be selected below the skyline to avoid silhouetting Marines as they move. Unless the ambient light level is high, passing through woods, ditches, ravines, and brush should be avoided if possible, as the noise of movement may lead to the patrol's presence being detected. If the threat is believed to possess night vision devices (NVDs), avoiding these types of terrain may not be possible. Traversing these types of terrain typically requires more time and causes more noise; therefore, the mission may involve additional time and risk.

Fire Support Planning
Fire support planning for patrols facilitates the delivery of the desired lethal or nonlethal effects on the threat or the environment to aid the patrol in accomplishing its mission. In addition to the delivery of fires from supporting arms, essential fire support tasks for patrols can include shaping tasks such as projecting information operations (IO) messages and themes that support the overall

mission of the unit throughout the operational environment. Fire support planning for a patrol helps to accomplish the following:

- Determine fire support requirements, delivery methods, and allocation of assets.
- Determine likely and potential targets.
- Determine fires limitations in the battlespace, including those imposed by the rules of engagement (ROE) and risk estimates.
- Determine potential fire support gaps on the patrol route.
- Plan fires to cover movement along the entire patrol route.
- Determine, establish, and rehearse fire control procedures, including which units may clear and deny fires within the patrol's area.
- Ensure patrols can direct and control fires—possessing both communications and required enablers, such as qualified forward air controllers (FACs) or joint terminal attack controllers (JTACs), joint fires observers (JFOs), and artillery and mortar forward observers.

Fire support plans for patrols are driven by the requirements of the mission, the available organic and supporting fire support units and agencies, fire support coordination measures (FSCMs), and the ROE. Basic fire support planning should—

- Analyze and assess potential fire support assets in terms of organic and supporting fires available, fire support procedures, priority of support, and FSCMs.
- Determine the limitations of fires employment within the battlespace, including those imposed by the ROE, risk estimate distances, potential collateral damage consequences, the impact of physical terrain, and the environment.
- Coordinate with the unit's fire support team to plan fires to cover movement along the entire patrol route, to cover gaps in organic fires with external agencies, and to establish trigger lines and a list of targets that assist the unit's COC in tracking what fire support agencies are available at any given time as a patrol moves along its route.
- Request the patrol have priority of fires from organic supporting arms, such as 60mm mortars.
- Establish and rehearse fire control procedures and communications with organic and supporting fire support agencies.
- Consider task-organizing individual patrols with fire support enablers such as mortar or artillery scouts or a JFO or JTAC.

Fires for patrols may include not only the employment of supporting arms, but also IO tasks, in accordance with the HHQ IO plans and requirements. For more information on fire support planning, see MCTP 3-10F, *Fire Support Coordination in the Ground Combat Element*. For more information on IO, refer to MCWP 3-32, *Marine Air-Ground Task Force Information Operations*.

Explosive Hazards

The enemy might use a variety of weapons and tactics, techniques, and procedures (TTP) that present explosive hazards against friendly forces, to include unexploded ordnance, land mines, captured enemy ammunition, bulk explosives, and IEDs. Explosive hazards may be encountered in any operational environment across the spectrum of military operations. They can be employed against foot-mobile, mounted, waterborne, rotary-wing, and tilt-rotor units.

Explosive hazards may or may not be covered by observation and fires, may be command detonated or victim actuated, and may be used as part of a complex ambush. They can be intended to injure, kill, or destroy friendly personnel and/or vehicles with blast, fragmentation, or chemical, biological, radiological, and nuclear (CBRN) agents. The threat of explosive hazards can cause patrols to become security conscious and reluctant to move along certain routes or into specific areas. When properly employed, they are difficult to detect, and can be constructed and employed by enemy forces who possess minimal resources and training. How Marines deal with these threat weapons depends on the nature of the threat and the type of operation and activities being conducted. Regardless of the type of explosive hazard being faced or the particular threat TTP, these weapons can easily inhibit the completion of a patrol's mission if they are not prepared to deal with them. With adequate intelligence and training, patrolling units should already be aware of the enemy's habits and TTP regarding explosive hazards. The intelligence sought by the commander and patrol leader before conducting a patrol should identify any recent use of explosive hazards, likely employment locations, and current threat TTP that could interfere with operations in their AO. For more detailed information, refer to MCTP 10-10C, *MAGTF Counter-Improvised Explosive Device Operations* or Marine Corps Reference Publication (MCRP) 10-10.1, *Countering Explosive Hazards*.

Environmental Considerations
Patrols are planned based on the unit commander's estimate of the situation, the required mission, and the environment in which they are conducted. Each operational environment presents unique challenges for planning and conducting patrols. The environment can directly affect the type of weapons and the effects of fires that can be employed. Other environmental aspects may have direct effect, such as the civil population in an urban environment causing restrictions in the ROE that restrict employment of certain types of fires. When planning for patrols, the unique aspects of the environment must be evaluated, considered, and understood from an enemy force perspective.

Heavily wooded or jungle environments provide a high degree of concealment, and may enable Marines to capitalize on increased stealth. However, they reduce movement speed and can limit visibility, making the effects of supporting arms difficult to observe. Mountainous terrain may also provide opportunities for concealment, but may canalize movement and reduce speed of action. Likewise, cold region environments may cause Marines greater fatigue due to the movement challenges they entail and the requirement for heavier individual loads for additional clothing, specialized equipment, and water. The increased altitude and thinner atmosphere in higher mountainous environments may also affect the lift capacity, time on station, and availability of supporting rotary-wing aviation.

By contrast, arid or desert environments generally provide excellent observation, target identification, and mobility, as well as the ability to engage targets at extended or even maximum weapons ranges. These environments offer little cover and concealment though, making surprise difficult to achieve without mobility. Arid environments also increase logistics requirements for water and fuel. Mounted patrolling may extend the operational reach of patrols; however, planners should carefully study the terrain to avoid natural danger areas or potential ambush sites. Desert terrain may contain areas unsuitable for off-road vehicle movement. Due to this factor, the reliance on limited established roads may subject mounted patrols to enemy ambush or attack.

Urban environments are some of the most challenging environments to patrol in. Urban environments strain the effective use of communications and severely canalize movement along predictable routes, making Marines vulnerable to attack. These environments entail increased requirements for ammunition, heavy weapons, armored vehicle support, and logistics.

For additional resources regarding the challenges of patrolling in these environments and others, refer to MCTP 12-10A, *Mountain Warfare Operations,* MCTP 12-10B, *Urban Operations*, MCTP 12-10C, *Jungle Operations*, MCTP 12-10D, *Desert Operations*, and their subordinate MCRPs.

UNIT COMMANDER'S DUTIES

The unit commander assigning the patrol assumes the most critical functions in the tasking and support of the patrol's mission. The commander must know the training and expertise of subordinates, as well as their weaknesses. The commander's primary responsibilities include—

- Determining patrol requirements.
- Assigning units.
- Providing adequate time.
- Providing information to the patrol leader.
- Providing special skills and equipment.
- Providing miscellaneous support.
- Supervising the patrol leader's plan and preparations.
- Debriefing the patrol.

Determining Patrol Requirements
The need to conduct patrols is derived from the commander's mission statement and other specified and implied tasks necessary to accomplish the mission. The commander must analyze the unit's mission and determine the necessary reconnaissance and other tactical tasks that must be performed. By considering the mission and the time available, the commander develops the overall concept of operations, including the patrol plan and the specific tasks for each patrol.

Assigning Units
When assigning patrol missions, unit integrity and the individual and collective skills and experience of the unit and its leader are critical factors. To provide operational depth and equitable apportionment of hazardous assignments, the commander should ensure that all subordinate leaders and units develop the skills and experience necessary to conduct successful patrols.

Providing Adequate Planning Time
The commander must allow the patrol sufficient preparation time to complete an estimate of the situation, issue an order, and prepare for the patrol. The commander should issue warning orders to alert subordinates to possible immediate requirements and afford them the opportunity for concurrent planning and preparation. The warning order should be periodically updated to reflect changes in the situation and eliminate outdated information. See appendix A for specific information contained within the patrol warning order.

Providing the Patrol Leader Information

At a minimum, the following information should be provided to the patrol leader:

- A simple, straightforward explanation of the mission, particularly for night patrols.
- As required, the general routes (defined by checkpoints) or exact routes (defined by avenues of approach or other terrain features) to follow.
- The enemy composition, disposition, and strength.
- The locations and activities of friendly troops.
- Outposts or other security elements through which the patrol is to pass.
- Terrain conditions.
- The missions and routes of other patrols.
- The time the patrol is to depart and return.
- The method of reporting information while on patrol (e.g., radio, messenger) and where messengers are to be sent.
- Where the patrol leader is to report upon completion of the patrol.
- Communications procedures for satellite, data, and single-channel radio communications.
- The challenge and password.
- Procedures to be used for exiting and reentering friendly lines or for coming into contact with other friendly forces.
- Special instructions, such as locations to be avoided and HHQ intelligence requirements.
- The barrier/obstacle plans of friendly units and support available from them (e.g., CASEVAC or quick reaction forces).
- Fire support available.
- A clear statement as to whether the accomplishment of the mission or time has priority.

Providing Special Skills and Equipment

If the unit assigned to conduct a patrol does not possess the technical skills or equipment to successfully accomplish the mission, it may be provided with additional equipment or attachments. These may include—

- Weapons, such as machine guns, multi-shot grenade launchers, and assault weapons.
- Forward observers for mortar and/or artillery.
- Radio operators.
- Counter-UAS systems.
- Counter-IED systems.
- Combat engineer teams or squads to assess the trafficability of terrain.
- Additional corpsmen.
- Host-nation security forces.
- Explosive ordnance disposal (EOD) teams.
- Military working dogs.
- Civil affairs teams.
- Military information support operations detachments.

- Radio reconnaissance teams.
- CI/HUMINT detachments.
- Scout sniper teams.
- Translators/interpreters.
- Female engagement team.

Providing Miscellaneous Support

The commander must ensure that the patrol leader is provided with the required logistics (e.g., food, water, ammunition, radios, batteries, maps, and special clothing), medical support, and any other items required to accomplish the mission. Post-patrol support such as debriefings by intelligence personnel must also be planned.

Supervising the Patrol Leader's Plan and Preparations

Once the patrol leader receives the mission, conducts a visual and/or map reconnaissance, and develops the plan, the commander confirms the patrol leader's understanding of the mission and plan for accomplishing it. This discussion between the patrol leader and the commander ensures that the patrol leader understands the commander's intent and has an opportunity to ask for clarification or additional support.

Debriefing the Patrol

Upon returning from the patrol, the commander receives the patrol report at a debriefing attended by all patrol members. The debriefing should be conducted as soon as possible following the patrol's return, while information is still fresh in the minds of the Marines. Every Marine is a collector, and each member of the patrol has a unique experience, observations, and impressions; therefore, all members should participate in the debrief.

PATROL LEADER DUTIES

The patrol leader organizes and prepares the patrol using the six troop leading steps to make the best use of resources available. These steps, referred to by the memory aid BAMCIS, are:

- Begin planning.
- Arrange for reconnaissance.
- Make reconnaissance.
- Complete the plan.
- Issue the order.
- Supervise.

Begin Planning

The patrol leader begins by evaluating all variables affecting the mission. Possible courses of action are looked for that lead to a decision, and then the decision is transformed into an order. This step includes making an initial assessment and decision on using available time, issuing a warning order with initial preparatory tasks, and constructing an estimate of the situation.

The patrol leader's estimate of the situation includes an assessment of the time, resources, and information available, and plans the proper use of each. Time allowances include conducting reconnaissance; completing the estimate and order; preparing the Marines; and conducting such briefings, rehearsals, and inspections as required before conducting the patrol.

The patrol leader reviews the mission and the attachments and/or support available to decide what preparatory efforts must begin immediately. Properly employing subordinates to manage these initial tasks during this period reduces preparation time and frees the patrol leader for planning and reconnaissance. The assistant patrol leader assists the patrol leader in determining immediate tasks, such as issuing the warning order and constructing a terrain model. A warning order is issued using a modified five-paragraph order format (i.e., situation, mission, execution, administration and logistics, and command and signal, also known as SMEAC).

Once the initial preparations are set in motion, the patrol leader begins estimating by analyzing—

- The mission, considering the current friendly and enemy situations balanced against the current operational environment.
- Each course of action available against what the enemy may do.

While the patrol leader should use notes, estimates must be done quickly and accurately, particularly for most likely enemy actions. The estimate of the situation is performed by analyzing the mission, enemy, terrain and weather, troops and support available—time available (METT-T). These are further described as—

- *Mission*. The mission assigned to the patrol and how it relates to the mission of the higher commander.
- *Enemy*. What is known or suspected of the enemy's presence and capabilities, habits and characteristics, and fighting techniques.
- *Terrain and weather*. Including ground, vegetation, drainage, weather, avenues of approach, and visibility.
- *Troops and support available*. The friendly situation and support available.
- *Time available*. The constraints and the effect of time on preparation and mission accomplishment.

The estimate begins with mission analysis, which is the most important part of the entire planning process. Here, the patrol leader considers the specified tasks of the mission assigned and identifies other significant tasks and actions that were not specified (i.e., implied tasks) that must be undertaken to accomplish the stated mission. These tasks are arranged in their sequence of accomplishment. The tasks and sequence create the framework for developing courses of action for the patrol's concept of operations.

Arrange Reconnaissance
Preferably, the patrol leader arranges a personal reconnaissance to observe as far forward as possible and coordinates with the appropriate commanders for the patrol's passage of lines and supporting fires. The patrol leader also coordinates with other patrol leaders who may be in the same or adjacent areas, and requests the commander assigning the patrol mission coordinate the

patrol action with adjacent commanders, local security, and night defensive fires, as appropriate. If a personal reconnaissance cannot be conducted, the patrol leader should conduct a map reconnaissance and analyze available aerial reconnaissance products. During this step, anticipated fire support requirements are developed and contingency plans are developed and coordinated, such as identifying potential CASEVAC or emergency extraction landing zones along both the primary and alternate routes. The patrol leader may delegate any or all of these arrangements to the assistant patrol leader if the patrol leader requires additional time for planning or coordination.

Make Reconnaissance

The patrol leader uses the personal reconnaissance to answer questions that arise from the map reconnaissance and METT-T analysis. Specific points to be determined include passage points, the location of lanes through friendly obstacles, locations of friendly listening posts and observation posts, possible approach and return routes, the location of enemy positions (if any), and intermediate observation points on the way to the objective. In addition to reconnaissance by unmanned aircraft, several fielded command and control (C2) systems provide tools for line- of- sight analysis of observation points, communications blind spots, and terrain masking of fires along proposed patrol routes.

In addition to these considerations, when selecting approach and return routes, the patrol leader selects routes that best utilize concealment and avoid obstacles. To lessen the chances of setting patterns, the return trip is planned along a different route. In addition to personal reconnaissance and reviewing the map and aerial photographs, the advice of other patrol leaders who may be familiar with the terrain and the objective area should be considered.

After compiling information about the situation and possible time constraints, the patrol leader completes an estimate. The first step is developing a scheme of maneuver that includes movement to the objective area, mission accomplishment, and return, based on the tasks and sequencing that were identified in mission analysis. While the eventual concept of operations is presented in order of occurrence, the patrol leader must develop the phases of the patrol by either backward or forward planning. In situations where the objective is well defined and there is sufficient information to plan the action for mission accomplishment, the patrol leader begins the scheme of maneuver at the objective and then, planning backwards, considering the options for movement to the objective area and back.

The following sections and chapters in this publication cover movement to and return from the objective area and the types of patrols, as well as providing more detailed methods and options available to the patrol leader in developing a concept of operations. The principal variables in the concept of operations are who, where, when, and how in the following:

- Patrol task organization.
- Routes to and from the objective area.
- Communications plan.
- Fire support plan.
- Primary and alternate routes.

The patrol leader then mentally considers the progress of each course of action against expected and unexpected enemy actions. A map, terrain model, or simple sketch can be useful aids. By comparing the options against each other and against prospective enemy reactions, the patrol leader selects the course of action that possesses the greatest chance of success. Included in this mental preview process is the development of plans to respond to unexpected contingencies (e.g., fires employment, enemy attack/counterattack, casualty handling). These contingency actions, together with the selected course of action, become the patrol concept of operations.

Once the patrol leader determines the scheme of maneuver, the fire support required to accomplish the mission is addressed, including the firepower organic to the patrol and what additional fire support must be provided by supporting units. When planning for fire support, the patrol leader considers the following questions:

- Will artillery, mortar, or close air support (CAS) be required during movement or at the objective area?
- What artillery and mortar targets presently exist along the routes to and from the objective area that can be employed by the patrol on contact with the enemy?
- What additional fire support will be required to cover the patrol's movement from the objective area back to the friendly area once an enemy becomes aware of the patrol's actions at the objective area?

The effect of casualties upon the patrol depends upon many factors—primarily the size of the patrol and its method of movement. Generally, more casualties can be expected in a security or ambush patrol than in a reconnaissance patrol. However, reconnaissance patrols are often smaller, and are therefore less able to deal with casualties, while larger patrols can absorb the impacts of casualties more readily due to increased personnel. A patrol may continue its mission to the objective carrying its casualties, send them back with a litter detail of Marines, abort the mission and return the entire patrol with the casualties, or request CASEVAC support from their parent unit. Some factors that determine what action the patrol leader takes into consideration include:

- The patrol's mission.
- The unit's standing operating procedure (SOP) for handling wounded.
- The number of casualties and nature of their injuries.
- The availability of aid and aircraft or ground transportation for the evacuation of casualties.

Aerial CASEVAC should only be considered for the most serious, life-threatening casualties. For units conducting patrols in proximity to the enemy, aerial CASEVAC may force the patrol to end the mission to deal with casualties and return to friendly positions.

The patrol leader determines the requirement for CBRN defense equipment. If chemical or biological agents have been employed in the area that the patrol must pass through, protective garments must be worn by patrol members for part of or for the entire patrol. Wearing extra clothing and carrying extra equipment increases fatigue and logistic requirements such as water and affects the speed of the patrol's movement. Patrolling in a CBRN environment also requires a post-patrol decontamination plan to be developed with the patrol's HHQ. For additional information on MAGTF operations within CBRN environments, see MCRP 10-10E, *MAGTF Nuclear, Biological, and Chemical Defense Operations*.

Complete the Plan

At this point, the patrol leader has developed the basic patrol plan necessary to accomplish the assigned mission. The patrol leader prepares the patrol order to provide the specific details, assign tasks to subordinates, and frame the plan to develop understanding between the members of the patrol. The patrol leader's order contains more detailed information than the warning order, and is graphically depicted with a patrol overlay which is coordinated with the patrol's HHQ. Information for developing a basic patrol order is contained in appendix B. Patrol overlay construction and requirements are described in appendix C.

Issue the Order

The patrol leader should receive a status report on the initial preparatory and coordination tasks assigned to subordinate leaders and specialists when the warning order was issued. After completing the planning and getting preparations to the point where the patrol order may be issued, the patrol leader assembles the patrol members and takes roll call. When all patrol members are present, the patrol leader issues the order.

This is usually the only opportunity for the patrol leader to issue detailed instructions. The mission must be unmistakably clear so that once the patrol is committed, all subordinate leaders can act with autonomy and unity of purpose.

Whenever possible, the patrol leader should have a detailed terrain model built based upon knowledge collected of the area from the map or leader's reconnaissance, intelligence, and aerial photographs. At minimum, the terrain model should depict friendly locations, primary and alternate routes, planned and on-call targets, and enemy locations (i.e., known, suspected, and likely). Terrain models provide patrol members with a clear and simple visual depiction of the AO and key terrain during the order. Terrain models should be oriented with the map and display prominent terrain and suspected enemy positions prominently.

Supervise

Pre-combat checks, rehearsals, and pre-combat inspections (often referred to as PCCs and PCIs), are vital to effective preparation and to developing patrol members' understanding of their duties and tasks. Rehearsals and inspections should always be conducted, regardless of the unit's experience level. The inspections are performed to determine the readiness of the patrol's personnel and equipment. The conduct of pre-combat checks, rehearsals, and pre-combat inspections are essential to the patrol leader's supervisory responsibilities.

Pre-Combat Checks. As part of patrol preparation, each patrol member is directly responsible for both the preparation and scrutiny of their uniform, equipment, and weaponry. These actions are continuous in nature and require frequent examination of functionality, fit, and serviceability to ensure preparedness. Each team or element leader inspects their respective team, and the patrol leader validates by supervising and spot-checking equipment and asking questions. The following areas are among those checked:

- Camouflage is complete.
- Patrol members have their identification tags and military identification cards.
- Prescribed equipment, weapons, and ammunition are serviceable and stowed properly.

- Tape and other items are used to silence equipment (i.e., prevent noise produced during movement).
- Personal protective equipment is serviceable, fitted (e.g., inserts cover vital areas; the helmet provides protection and allows for proper weapons mount), and worn properly.
- Items that could provide information to the enemy (e.g., letters, papers) are left behind.
- Unnecessary equipment and excess weight are left behind.
- Function checks are performed on all weapons systems to ensure proper functioning.

Rehearsals. Rehearsals ensure the patrol's optimal efficiency and knowledge. Plans are checked and changed as required. The patrol leader verifies the suitability of equipment. Patrol members become thoroughly familiar with the actions to take during the patrol by practicing them before-hand, preferably in a secure area on similar terrain, if available. Rehearsals are critical to integrating supporting or attached enablers into the patrol's plan, such as corpsmen or weapons teams. The rehearsal is also used to test the soundness of the patrol order and patrol organization.

If the patrol is to operate under limited visibility, both day-time and night-time rehearsals should be conducted. All actions should be rehearsed. If time is limited, the most critical phases are rehearsed. The actions on the objective is the most critical phase of the patrol and should always be rehearsed.

An effective method is to talk the patrol through each phase, describing the actions and having each member perform individual duties. When satisfied, the patrol leader walks the patrol through all phases of the patrol using only the signals and commands to be used during the actual conduct of the patrol. Rehearsals are continued until the patrol is thoroughly familiar with the plan.

After the rehearsal, the patrol leader may make final adjustments to the plan and the patrol organization based on what was learned during the rehearsal or from intelligence updates and adjacent patrols. When this is completed, the patrol leader issues final instructions to subordinate leaders, noting any changes made in the patrol organization or plan. While the subordinate leaders brief the remainder of the patrol members, the patrol leader reports to the commander that the patrol is ready to begin the mission.

Pre-Combat Inspections. The patrol leader and assistant patrol leader inspect prior to rehearsals to ensure the patrol members' uniforms and equipment are complete and correct. Each team or element leader inspects their respective team, while the patrol leader validates by supervising and spot-checking equipment and asking questions. The patrol leader pays particular attention to specialized equipment required for the success of the patrol (e.g., metal detectors, breaching equipment, and demolition charges). The patrol leader questions each patrol member—including corpsmen, attached teams, or other enablers—to ensure they thoroughly understand the following:

- The mission, planned routes (i.e., primary and alternate), and fire support plan.
- The individual's role—what to do and when to do it.
- What others are to do and how their actions impact them and the patrol.
- Challenges and passwords, codes, reporting times, radio call signs, frequencies, and any other pertinent details.

- CASEVAC procedures.
- Any contingency plans critical to the mission.

If there is a longer period between the final rehearsal and departure, the patrol leader re-inspects just before departure to ensure all equipment is still in working order and the unit is ready to conduct the mission. For more information on pre-combat checks and inspections for foot- mobile and mounted patrols, refer to appendix D.

COMBAT OPERATIONS CENTER COORDINATION

The COC anticipates contingencies and is prepared to effectively deal with them by maintaining communication, enforcing reporting discipline among patrols, and coordinating with higher, adjacent, and supporting units to reduce response times. During the execution of a patrol, the COC maintains continuous awareness of the patrol's location, actions, and intentions to ensure an accurate CTP and to streamline contingency response times. The primary means of command and control is through detailed planning (i.e., appropriate overlays and fires support/contingency plans), timely reporting, and efficient battle tracking. Manual and technical processes support the control effort. Refer to appendix E for a checklist of basic patrol coordination items.

Watch Officer Responsibilities
The watch officer is the senior Marine in the COC and maintains awareness of a patrol's status and progress. The watch officer must be prepared to anticipate the patrol's requirements based on its status and location. Some of the watch officer's responsibilities include the following:

- Supervises all personnel in the COC.
- Supervises current operations and initiates appropriate action as the commander's senior representative.
- Ensures all patrols are briefed and debriefed.
- Conducts cross-boundary coordination and shares patrol status with adjacent units when necessary.
- Controls patrols' entry and exit of friendly lines or areas.
- Obtains situational updates from COC personnel.
- Maintains situational awareness of all friendly and enemy activity.
- Provides situational updates and briefings for key personnel.
- Obtains information from appropriate subordinate and supporting units.
- Disseminates information to appropriate subordinate and supporting units.
- Notifies the commander of any event related to a commander's critical information requirement.
- Ensures all status boards in the COC are current.
- Commits the reserve in accordance with unit SOP.
- Coordinates and clears supporting arms in accordance with appropriate procedures.

- Monitors the firing status of all organic and supporting arms fires, including aviation.
- Adjusts and disseminates FSCMs based on the tactical situation.
- Updates the situation map with friendly patrols and enemy activity during the last 48 hours.

Manual Control Procedures

The COC controls patrols through the timely posting of patrol overlays, manually updating patrol positions as reports are received, updating priority targets and associated supporting/firing agencies, and updating the current situation maps and the CTP.

Technical Control Procedures

Technical means, such as satellite-enabled positioning and communications systems, can assist COCs in controlling patrols and other operations. However, they require the redundancy of manual procedures to ensure the COC is capable of timely response to all contingencies.

Technical methods also provide a detailed record of a patrol's position and location information for patrol debriefs, and serve as an "honesty trace" to avoid establishing patterns that could be exploited by the enemy.

Information Provided to the Combat Operations Center

Information provided to the COC is necessary and mandatory for the commander to adequately support the patrol. This information is provided prior to departure, during execution, and at the end of the patrol upon return.

Prior to the Patrol. Prior to a patrol, patrol leaders should provide the following at a minimum:

- Patrol route overlay.
- Fire support overlay.
- Roster of personnel.
- Time of departure and anticipated time of return.
- Equipment density list.
- All communications information, (radio frequencies and satellite communications devices).

During the Patrol. While conducting a patrol, patrol leaders must provide the following at a minimum:

- Status and position reports.
- Changes to routes.
- Enemy contact, whether visual or physical.
- CASEVAC, if required.

Following the Patrol. After a patrol, patrol leaders must provide the following at a minimum:

- Results of the patrol debrief.
- Recommended changes in TTP or SOP.
- Patrol report (discussed in appendix F).

Information Provided to the Patrol

During planning, the COC provides the most recent intelligence updates and other necessary support to assist in detailed planning. During the conduct of the patrol, the unit COC's watch officer or intelligence section monitors the progress of all patrols and ensures they are informed of any updated intelligence information or changes in fire support relevant to the mission.

CHAPTER 2.
PATROL ORGANIZATION

ORGANIZATION

Patrols can be organized to perform a myriad of tactical tasks in either reconnaissance or combat roles. Every patrol must be able to provide its own security, navigate accurately, and identify and cross danger areas to complete their assigned mission. Additionally, patrols must be able to conduct detailed searches and effectively deal with casualties, prisoners, or detainees. To meet these challenges, the patrol leader identifies tasks the patrol must be able to perform and decides what elements or teams are required to conduct them. Whenever possible, the patrol leader should strive to maintain unit integrity with the understanding that platoons, squads, and fire teams may either perform multiple tasks during a patrol mission or be responsible for one task only.

Organizing a patrol essentially consists of two steps—the first is determining its general organization, and the second is determining the specific task organization required to accomplish the mission effectively. The commander assigning the patrol's mission forms the general organization of the patrol by prescribing a size for the patrol unit, such as a fire team, squad, platoon, or even company-sized patrol unit. The commander may also designate subordinate units within larger sized patrols to perform independent patrolling tasks. For instance, a company performing combat patrols may task two platoons to perform security patrols while another performs reconnaissance patrols.

The size of a patrol chiefly depends on the unit commander's estimate of the situation and the required mission. Generally, a patrol should contain the least number of members required to accomplish the mission. The type of mission for which a patrol is assigned affects its size. For example, it is necessary for combat patrols to be able to fight offensively or to defend themselves, areas, facilities, or installations that may require more Marines. Conversely, for reconnaissance patrols which seek to move with stealth, fight only in self-defense, or break contact—fewer Marines are required.

When intelligence analysis indicates the likelihood of a patrol encountering explosive hazards during execution of its mission, the commander may consider expanding the task organization with additional equipment or personnel. Specialized equipment can include metal detectors, sickle sticks, or vehicle-mounted mine rollers. Detachments or teams of combat engineers (to detect, confirm, and reduce), EOD technicians (to detect, interrogate, classify, and eliminate), or explosive detection working dog teams (to detect) may improve a patrol's ability to counter explosive hazards. Alternatively, some of these capabilities, such as EOD, may be in general support and have to be called upon if needed during the mission. If the enemy has employed radio-controlled improvised explosive devices (RCIEDs), the patrol may use counter radio- controlled

explosive device electronic warfare (CREW) equipment to address this danger. Patrol planning should include the number and type of CREW systems required based on the movement method, terrain, and dispersion. Thorough CREW planning will prevent portions of the patrol from becoming exposed to the effects of RCIEDs or CREW systems from disabling patrol communication systems.

The nature of patrolling does not normally permit long preparation periods and rehearsals to create specific units for each mission. Accordingly, the patrol leader must rely on unit integrity, the habitual relationships within the unit, and established unit SOPs. With the general organization of the patrol established by the commander, the patrol leader establishes a patrol headquarters element and identifies other elements and teams within the patrol required to accomplish the assigned mission (task organization for combat and reconnaissance patrols is discussed further in chapter 3).

ELEMENTS AND TEAMS WITHIN PATROLS

Elements and teams are formed together as required based upon the mission and METT-T and will differ depending on whether the patrol has a combat or reconnaissance mission. The patrol leader carefully studies all specified and implied tasks in assigning elements and teams for the patrol. The elements and teams described below are normally common to all patrols.

Elements

Elements are established to provide control of a patrol's functions. Depending on the patrol's organization, mission, and size, element leaders may include fire team leaders, squad leaders, and platoon commanders.

Headquarters Element. The headquarters element typically consists of the patrol leader, assistant patrol leader, radio operator, and unit corpsman. It may also include any attachments or enablers—either organic or supporting— that the patrol leader determines must be controlled directly to accomplish the mission.

Security Element. The security element provides all-around security while en route to the objective area, during halts, and at the objective area. The security element is typically divided to provide security to the front, flanks, and rear of the patrol. During movement, larger patrols (i.e., platoon or company) may assign this task to a specific unit (i.e., a platoon or squad). For smaller patrols, security en route to the objective is the responsible of every individual within the patrol.

Assault Element. An assault element is the part of a combat patrol which attacks an objective. The assault element may also include search teams to clear the objective.

Support Element. A support element is the part of a combat patrol that provides support by fire for an attack, covering fire for a withdrawal, and supporting fires to cover danger area crossings.

Teams

Teams are established within elements to perform additional or specialized support tasks that assist the patrol. Some common teams in patrols include aid and litter teams, detainee search teams, and tracking teams.

Aid and Litter Team. Aid and litter teams are responsible for performing buddy aid and evacuating casualties. When assigned, aid and litter teams ensure they possess the equipment required to perform their duties, such as light-weight litter bearing equipment (i.e., stretchers) or field expedient means to carry wounded personnel.

Detainee Search Team. Detainee search teams search, silence, safeguard, segregate, speedily tag and, evacuate detainees (these are commonly referred to as the "five S's and a T"). For specialized teams by type of patrol, refer to chapter 3.

Tracking Team. Tracking teams are small teams formed for specific tasks or purposes that may be required during contact and reconnaissance patrols. For example, tracking teams may pursue to gain and maintain contact with a fleeing enemy after initial contact, assist in locating firing points of origin, or recovering wounded or missing Marines. For more information, see chapter 9.

PATROL ENABLERS

Enablers provide unique and specialized skills or functions that support a patrol's assigned mission. These are typically categorized as organic enablers (i.e., those that belong to the unit) and supporting enablers, which are assigned to support the patrol from external units.

Organic Enablers

Organic enablers are those that can be tasked to provide support to a patrol from the patrol's parent organization. These can include—but are not limited to—the following:

- Crew-served weapons, such as machine gun teams or heavy weapons.
- Organic UASs.
- Forward observers for 60mm, 81mm, or artillery fires.
- Qualified FACs, JTACs, and JFOs.

Supporting Enablers

Supporting enablers are those that are sourced from external organizations and units. These can include the following:

- EOD technicians.
- Combat engineer detachments.
- Interpreters.
- CI/HUMINT detachments.
- Female engagement teams.

- Radio reconnaissance teams.
- Military working dog teams.
- Civil affairs teams.
- Military information support operations detachments.
- Host-nation security forces.

KEY LEADER RESPONSIBILITIES

Regardless of the assigned mission, each leader within a patrol performs a key function. Responsibilities can differ from unit to unit and are largely assigned based upon unit SOPs and the training and experience level of the individual Marines. Refer to appendix G for training considerations.

Patrol Leader

The patrol leader is responsible to the unit commander for planning and conducing the patrol. This includes tactical employment, training, administration, personnel requirements, and logistics. Under the commander's guidance, the patrol leader is the principal Marine charged with planning, issuing orders, assigning tasks, making timely decisions, and supervising the patrol's activities. Additionally, the patrol leader—

- Is responsible for positioning and employing all assigned or attached personnel, weapons, and equipment.
- Establishes the time schedule, considering the time for execution, movement to the objective, and planning and preparation before departure.
- Takes the initiative to accomplish the mission in the absence of orders and keeps HHQ informed using periodic situation reports, normally in accordance with the unit SOP.
- Controls subordinate elements, teams, and other key personnel assigned to the patrol, with the help of the assistant patrol leader.
- Reviews patrol requirements based on the mission, and—when required—requests additional support from HHQ needed to perform the mission.
- Supervises and spot-checks all assigned tasks, and corrects unsatisfactory actions.
- Takes a position during the patrol that enables influencing the most critical task for mission accomplishment.
- Leads rehearsals.

Assistant Patrol Leader

The assistant patrol leader is the next senior Marine and second in command of the patrol. As such, the assistant patrol leader serves in a similar role to the patrol as a platoon sergeant does to a platoon. The assistant patrol leader assists and advises the patrol leader in planning and leading the patrol. In the patrol leader's absence or incapacitation, the assistant patrol leader assumes their role. During planning and preparations, the assistant patrol leader attends to the patrol's administrative and logistical requirements by preparing and issuing paragraph four of the patrol

order (i.e., administration and logistics). The assistant patrol leader's duties include—but are not limited to—the following:

- Ensures that the patrol adheres to the established time schedule.
- Organizes and controls the patrol's headquarters element in accordance with the unit SOP, patrol leader's guidance, and METT–T factors.
- Maintains accountability of the patrol's personnel, weapons, and equipment; consolidates and forwards casualty reports; and receives and orients attachments.
- Receives subordinate leaders' requests for rations, water, and ammunition; coordinates to requisition required supplies before, during, and after the patrol.
- Coordinates and supervises patrol resupply and ensures that supplies are distributed in accordance with the patrol leader's guidance and directions.
- Ensures that ammunition, supplies, and loads are properly and evenly distributed (a critical task during consolidation and reorganization).
- Supervises and directs the corpsman and aid and litter teams in moving casualties to casualty collection points.
- Ensures the CASEVAC plan is complete and executed properly.
- Monitors the morale, discipline, and health of patrol members.
- Assists the patrol leader in supervising and spot-checking all assigned tasks and correcting unsatisfactory actions.
- Supervises the following task-organized elements of the patrol:
- Security forces during withdrawals.
- Support elements during raids or attacks.
- Security patrols during night attacks.

Actions During Movements and Halts. There are many reasons for which a patrol may be required to conduct a halt. During halts, the assistant patrol leader supports the patrol leader by—

- Taking actions necessary to facilitate movement.
- Focusing on security and control of the patrol, and ensuring that all-round security is maintained at all times.
- Supervising rear security during movement.
- Establishing, supervising, and maintaining security during halts.
- Maintaining awareness of the patrol's location.
- Performing additional tasks as required by the patrol leader and assisting in every way possible.

Actions at Danger Areas. The assistant patrol leader is essential to the placement and security of the patrol at danger areas by—

- Directing the positioning of near and far-side security
- Controlling the movement of elements through and across danger areas.
- Maintaining accountability for personnel.

Actions in the Objective Area. As a patrol enters the objective area, the patrol leader must remain focused on the actions critical to accomplishing the patrol's mission. To allow the patrol leader to maintain this focus, the assistant patrol leader—

- Assists with occupying the objective rally point (ORP).
- Supervises, establishes, and maintains security at the ORP.
- Supervises the final preparation of personnel, weapons, and equipment in the ORP in accordance with the patrol leader's guidance.
- Assists the patrol leader with control and security.
- Supervises the consolidation and reorganization of ammunition and equipment.
- Establishes, marks, and supervises the planned casualty collection point, and ensures that the personnel status (i.e., including wounded and killed in action) is accurately reported to HHQ when required.
- Performs additional tasks assigned by the patrol leader and reports their status as required.

Actions in the Patrol Base. As the patrol enters or occupies a patrol base, it is vulnerable to being compromised or attacked. The assistant patrol leader assists in the occupation by—

- Assisting in establishing and adjusting the perimeter.
- Enforcing security in the patrol base.
- Keeping movement and noise to a minimum.
- Supervising and enforcing camouflage.
- Assigning sectors of fire.
- Ensuring designated personnel remain alert and equipment is kept at a high state of readiness.
- Requisitioning supplies, water, and ammunition, and supervising their distribution.
- Supervising the priority of work and ensuring its accomplishment.
- Ensuring crew-served weapons have interlocking sectors of fire.
- Ensuring command-detonated explosives are emplaced to cover dead space.
- Ensuring range cards and sector sketch are complete.
- Performing additional tasks assigned by the patrol leader and assisting in every way possible.
- Supervising the following plans:
  - Security plan.
  - Alert plan.
  - Evacuation plan.
  - Withdrawal plan.
  - Alternate patrol base.
  - Maintenance plan.
  - Hygiene plan.
  - Messing plan.
  - Water plan.
  - Rest plan.

Element Leaders

Element leaders are the leaders who work directly for the patrol leader and are in charge of specific duties and functions for a patrol. While the elements in a patrol vary based on the mission requirements, common elements include a security element, a support element, and an assault or reconnaissance element. These leaders are responsible for the employment of their subordinate leaders, specialized tasks, and attached personnel. Element leaders are critical to ensuring the tactical performance of their Marines throughout the conduct of a patrol. The general duties of element leaders include—

- Requisitioning, receiving, and distributing supplies as directed by the patrol leader or assistant patrol leader.
- Ensuring that ammunition, supplies, and combat loads are properly and evenly distributed (a critical task during consolidation and reorganization).
- Orienting attachments to their duties with the unit.
- Keeping the patrol leader and assistant patrol leader informed of their unit's status.
- Ensuring that their units adhere to the patrol leader's time schedule.
- Maintaining accountability for their units' personnel, weapons, and equipment.
- Submitting requests for rations, water, ammunition, and other supplies before, during, and after the patrol.
- Monitoring the morale, discipline, and health of their units.
- Completing and forwarding casualty information as required.
- Supervising the maintenance of the unit weapons and equipment.
- Inspecting the condition of Marines' weapons, clothing, and equipment.

Actions During Movement and Halts. During all halts, an element leader focuses their efforts on the necessary security actions and employment of the unit by—

- Ensuring subordinate leaders disseminate information, assign sectors of fire, and check personnel.
- Maintaining proper movement techniques while monitoring route, pace, and azimuth.
- Following the patrol leader's plan and making employment and security recommendations.
- Ensuring the unit maintains security throughout the movement and during halts.
- Preventing breaks in contact.
- Delegating priority tasks to subordinate leaders and supervising their accomplishment in accordance with the patrol leader's guidance.
- Obtaining status reports from team leaders and submitting them to the patrol headquarters element.
- Making recommendations to the patrol leader and assistant patrol leader when problems are observed.
- Taking initiative in the absence of orders.
- Ensuring heavy equipment is rotated among members and difficult duties are shared.
- Notifying the patrol leader of any changes to the unit's status.

Actions at Danger Areas. Element leaders emplace security at danger areas per the orders of the patrol leader or assistant patrol leader by—

- Positioning near-side security (usually the trail element).
- Assisting their teams move through and across the danger area.
- Reconnoitering the far side of the danger area and positioning far-side security (usually the lead element).
- Maintaining accountability for personnel.

Actions at the Objective Area. During actions in the objective area, an element leader prepares their unit for employment by—

- Ensuring special equipment has been prepared for actions at the objective.
- Maintaining positive control of the element during the mission.
- Positioning key weapons systems before, during, and after actions on the objective.
- Obtaining status reports from subordinate leaders, consolidating and forwarding them to the patrol leader, and ensuring ammunition and other supplies are redistributed.

Actions in the Patrol Base. Within the patrol base, an element leader—

- Ensures their element occupies the patrol base per SOP and the patrol order.
- Adheres to the time schedule set by the patrol leader.
- Ensures that the element's assigned sector of the patrol base is covered by team interlocking fires and makes final adjustments if necessary.
- Emplaces listening or observation posts in front of the assigned sector based on the patrol leader's guidance and applicable METT-T factors.
- Ensures priorities of work are being accomplished, and reports their status to the patrol leader and assistant patrol leader.
- Ensures personnel are cognizant of the alert, rest, and evacuation plans; signals; and the locations of key leaders, observation and listening posts, and the alternate patrol base.

Team Leaders

Team leaders are responsible to their element leaders for the preparation and employment of their teams. They control their teams' employment, positioning, movement, and weapons employment per the element leader's guidance and orders. Using proper commands and signals, team leaders position themselves to best command and control their teams during all movements and halts per their element leaders' orders. They maintain accountability of their teams' Marines, weapons, and equipment, and ensure team members maintain their tactical discipline while remaining knowledgeable of their tasks and the mission.

Radio Operator

Communications planning and execution is a critical part of the effectiveness and security of a patrol. During both planning and execution, the radio operator's duties are essential to the commander's knowledge of the patrol's progress, location, and status. As such, the radio operator—

- Ensures that all frequencies, communications security fills, and net identifications are pre-set in the patrol's radios.

- Ensures all HHQ and support agency nets are available and pre-programmed into radios when necessary.
- Informs key leaders of changes to call signs, frequencies, and the challenge and password based on the appropriate time in the communications plan.
- Enters the net at the specified time.
- Ensures the proper function of all radios, assists in troubleshooting procedures, and reports deficiencies.
- Weatherproofs all communications equipment.
- Assists in ensuring communications checks are completed prior to the patrol's departure.
- Relays contact information to HHQ—typically in a size, activity, location, unit, time, and equipment (SALUTE) report.
- Consolidates and records all information related to intelligence requirements or PIRs collected on by the patrol.
- Maintains communications with HHQ, providing position reports, situation reports, and hourly radio checks.

Unit Corpsman

The corpsman assists the assistant patrol leader in directing the aid and litter teams and monitoring the health of the patrol members. The corpsman's duties on a patrol include—but are not limited to—the following:

- Treating casualties, conducting triage, and assisting in CASEVAC under the control of the assistant patrol leader.
- Aiding the patrol leader or assistant patrol leader in supervising field sanitation.
- Personally checking the health and physical condition of patrol members.
- Ensuring casualty reports are correct and attached to each evacuated casualty.
- Carrying out other tasks assigned by the patrol leader or assistant patrol leader.

CHAPTER 3.
TYPES OF PATROLS

TYPES OF PATROLS

Patrols are primarily categorized by their purpose as being either combat or reconnaissance patrols. Each patrol has a single mission, but may be required to perform other tactical tasks, which could include aspects of other types of patrols. An example of this is described below.

A rifle platoon tasked to conduct security patrols in the company AO discovers a lightly guarded enemy artillery gun position being resupplied by a large logistics truck and reports it to HHQ. Relying on the company commander's intent to attack soft targets wherever they are found, the platoon commander leading the patrol determines that the artillery gun poses a danger to the company. Recognizing this may be an excellent opportunity to conduct a hasty ambush, the platoon commander decides to quickly establish an ORP and conduct an area reconnaissance around and adjacent to the gun position to determine the enemy's capability to defend or be reinforced. During the area reconnaissance, it is discovered that there are no other nearby enemy positions capable of reinforcing the gun position. Realizing that time is short, the platoon commander then determines that the more lucrative target to attack first is the resupply truck, because the gun crew is away from the gun and preoccupied with personnel unloading the truck. The platoon commander radios the patrol's intentions to HHQ, formulates a plan, emplaces the Marines, and performs a hasty ambush, killing five enemy personnel, capturing two personnel, and disabling the truck. Upon searching the gun position and truck, the platoon discovers unique looking artillery ordnance. The platoon commander determines that it is unsafe to touch or tamper with the ordnance and that it could be of high intelligence value. Upon reporting to HHQ, the platoon is told that specialized intelligence personnel are being dispatched with another platoon to investigate. The company commander then orders the platoon to provide security around the area while intelligence personnel move to the area to examine the ordnance. Without being ordered to, and after taking a few pictures of the ordnance, the platoon commander makes plans to destroy the gun with AT-4 rockets in case enemy reinforcements arrive that are too large for the patrol to fight. The platoon commander also requests air support over the position to provide physical security and observation while employing the patrol's organic unmanned aircraft. The platoon escorting the intelligence personnel arrives and relieves the platoon in place, assumes security for the area, and the platoon continues its originally assigned mission.

As opportunities present themselves in the operational environment, all patrols must be prepared to execute their primary missions first, as well as retain the flexibility to shift between combat and reconnaissance throughout execution.

COMBAT PATROLS

A combat patrol is a tactical unit that is sent out from the main body to engage in independent fighting. Combat patrols can be employed in offensive, defensive, and stability activities alike. The types of combat patrols are:

- Raid.
- Ambush.
- Security.
- Contact.

Combat patrols assist the unit in accomplishing the mission by—

- Inflicting damage on the enemy or other threats to operations.
- Denying enemy observation or access to key terrain, critical areas, infrastructure or facilities.
- Probing positions to determine the nature and extent of the enemy's presence.
- Establishing and/or maintaining contact with enemy or friendly forces.

Task Organization

Combat patrol leaders should make every attempt to maintain the unit's existing organization (e.g., fire team, squad, platoon, and company) to aid in control when assigning elements, teams, and other specialized tactical tasks.

As with any patrol, the task organization of a combat patrol depends on the specific mission assigned. Special requirements are generated and the patrol is task-organized to fit the requirements of the specified mission.

Combat patrols are prepared and equipped to engage enemy forces under the control of a headquarters element. With the expectation that combat patrols may have to physically engage the enemy, they typically carry more firepower and task-organize with additional specialized teams and elements to perform their missions. The following common elements and teams may be included.

Assault Element. The assault element seizes and secures the objective and protects special teams as they complete their assigned actions in the objective area.

Support Element. The support element provides direct and indirect fire support for the unit. Direct fires may include snipers, machine guns, and antiarmor weapons. Indirect fires may include mortars, artillery, CAS, and organic grenade launcher systems.

Security Element. The security element provides security at danger areas, secures the ORP, isolates the objective, and supports the rest of the patrol's withdrawal once actions on the objective are complete. The security element may have separate security teams, each with an assigned task or sequence of tasks.

Detainee Search Teams. The assault element may provide search teams of two or four Marines each to search bunkers, buildings, or tunnels on the objective or kill zone. Primary and alternate teams may be assigned to ensure enough prepared personnel are available on the objective.

Demolition Teams. When assigned, demolition teams (consisting of combat engineer personnel) will prepare and employ military explosive charges to damage, destroy, or demolish designated targets. Demolition targets can include weapons, equipment, vehicles, supplies, infrastructure, or facilities. The selection of infrastructure and facility targets is guided by the ROE.

Equipping Combat Patrols

Combat patrols are armed and equipped as necessary to accomplish the mission. In addition to binoculars, wire cutters, compasses, and other common equipment for patrols, combat patrols typically carry more automatic weapons, ammunition, and grenades in order to conduct close combat. The weight of the prescribed equipment to be carried for the mission should be closely considered. This includes the additional weight of items to be worn or carried, such as body armor and helmets, which drive additional consumption—and still more weight to be carried—in water or food to sustain the Marines, especially for longer patrols. Communications with HHQ are critical, as the success of the mission may hinge upon being able to call for supporting fires, CASEVAC, or reinforcement if required. Internal radio communications between the elements and teams is also very useful, such as squad radios. However, the weight of the communications devices and the additional logistics they require, such as batteries, must be considered.

Equipment, ammunition, and logistics must be carefully considered and planned so as not to overburden the Marines and impede their movement or threaten mission accomplishment.

RAID PATROLS

A raid is a limited-objective attack that can be conducted as part of a combat patrol. Raids are detailed and typically require a high degree of intelligence and increased planning and rehearsal time, including in-depth planning for contingencies. They may make use of cordons or supporting arms to isolate the objective area. The raid is useful to achieve limited tactical results and requires the commander to carefully develop the task organization and closely supervise both preparation and execution to ensure success. Detailed information on planning and conducting raids is provided in MCWP 3-01, *Offensive and Defensive Tactics*.

AMBUSH PATROLS

An ambush is a surprise attack by fire from concealed positions on a moving or temporarily halted enemy. (MCRP 1-10.2, *Marine Corps Supplement to the Department of Defense Dictionary of Military and Associated Terms*) Ambushes utilize the principles of surprise, violence, control, and massing coordinated fires. Ambushes should be designed to place the enemy in a dilemma where staying in the kill zone or attempting to move out of it prove equally lethal. Ambushes can be

planned and conducted in myriad ways, and may include an assault to close with and decisively engage the enemy in close combat or be an attack by fire only. Great care must be taken with area ambushes to deconflict geometries of fires to prevent fratricide. Mission requirements, environmental constraints, and imagination are the only limitations in devising effective ambushes. Ambush formations are depicted in MCRP 3-10A.3, *Marine Infantry Platoon*.

Purpose of Ambushes

Ambushes are executed to reduce the enemy's overall combat effectiveness by destroying their units, capturing prisoners, gaining intelligence, or destroying or capturing equipment, supplies, or facilities. They may also be conducted to harass the enemy. The cumulative effect of many small ambushes can lower enemy morale, which can reduce the confidence and fighting spirit of the enemy soldiers. Frequent ambushes may cause the enemy to divert forces away from other missions to guard convoys, troop movements, and other critical sustainment activities. When enemy reconnaissance and security patrols fail to accomplish their missions because they are ambushed, the enemy is denied information on Marine forces. Successful ambushes cause the enemy to be less aggressive, more defensive, and overly security conscious.

Types of Ambushes

The two types of ambushes are point and area. In point ambushes, forces are deployed to attack along a single kill zone. In area ambushes, forces are deployed to conduct several coordinated point ambushes throughout an area. A point ambush, whether independent or conducted as part of an area ambush, is positioned along the enemy's expected route of approach. The formation of the ambush force is important, because the positioning of key weapons will determine whether the ambush can deliver the heavy volume of highly concentrated fire necessary to isolate, trap, and destroy the enemy within the kill zone.

The ambush formation is determined by carefully considering the advantages and disadvantages of the possible formations in relation to METT-T, specifically—

- The time and intelligence available for planning.
- Terrain that favors the ambush objective (i.e., does not favor enemy counterattack).
- Visibility is two-fold; it includes both the ability for the patrol to observe fields of fire in the kill zone and the ability for the enemy to see the ambush lying in wait.
- The capabilities of the forces (i.e., both friendly and enemy).
- Weapons and equipment (i.e., both friendly and enemy).
- The simplicity or complexity of control.
- The type of targets to be attacked (e.g., personnel, vehicle formations, or facilities).

Factors for a Successful Ambush

Many factors give the ambush its best chance of success. The ideal situation is to have—

- Adequate time available for detailed planning, preparation, and rehearsals.
- Abundant detailed and accurate intelligence available to support planning.
- A leader's reconnaissance to position the ambush on defensible terrain that provides clear observation and fields of fire, and is concealed from the approaching enemy forces.

A patrol leader conducting an ambush searches for the most favorable terrain in which the enemy is canalized between two obstacles and has limited opportunity to counterattack or escape the effects of ambush fires. The ambush patrol should occupy sites with as much cover and concealment as possible to provide adequate firing positions, weapons employment, and routes of withdrawal. Suitable areas include defiles, small clearings, bends in trails, bridge crossings, fording sites, and steep grades. Dense undergrowth adjacent to the ambush site permits observation from concealed positions and can allow unobserved entry and exit to and from the ambush site, but should not inhibit the effect or employment of critical weapon systems.

Favorable fields of fire for a successful ambush include longer stretches of road, trail, or open areas. Considerations for positioning and employing machine guns, light antitank weapons, grenades, and grenade launchers must be balanced with METT-T considerations (a general rule of thumb is at least 15 meters away from the kill zone). The ambush site can be improved by constructing obstacles such as felled trees, wire obstacles, command-detonated explosives, or other explosive obstacles to block the enemy in the kill zone. Additional considerations for a successful ambush include the following:

- All METT-T factors that can be utilized to advantage.
- Coverage of the whole kill zone by fire.
- Coverage and employment of indirect fires and grenade launchers.
- Using existing or reinforcing obstacles, including explosive and non-explosive features, to fix the enemy in the kill zone.
- Use of security teams employing antiarmor weapons, command-detonated explosives, and various means of communication.
- Security elements or teams to isolate the kill zone.
- Protection of the assault and support elements with command-detonated explosives.
- The assault element assaults through the kill zone to the limit of advance.
- Timing the actions of all elements to maintain surprise. If a member of the ambush is compromised, they may initiate the ambush immediately to retain maximum surprise.
- When the patrol must remain in the ambush site for a long period of time, the patrol leader considers facilitating a rest plan by rotating elements between the ORP and the ambush site.

Planning Considerations

As with any combat mission, ambushes are driven by the time available for planning in either a hasty or deliberate fashion. When adequate time is available, deliberate ambushes are planned in detail, allowing for careful intelligence study and preparation. Prior intelligence, knowledge of operational information about the enemy, and adequate time permits detailed understanding of possible enemy counteractions and time for the patrol to develop plans to defeat them. Marines may be afforded time to reconnoiter potential ambush sites and rehearse actions in the objective area. Ideally, the information required to plan a deliberate ambush includes the size, composition, and organization of the force to be ambushed, any knowledge or trends of how the force operates (i.e., TTP), and the potential times and locations it will likely be vulnerable to ambush. When fleeting opportunities are presented during a mission and Marines can quickly capitalize on a vulnerable enemy, hasty ambushes are quickly planned and executed. Hasty ambushes may be planned before departing a friendly area, but are more commonly executed during the patrol. A

hasty ambush is a time critical mission performed when planning time is minimal and the opportunity to quickly attack a vulnerable enemy could be lost if not acted upon immediately. Balanced tradeoffs must be made between the degree of information required to develop a hasty plan and the requirement to quickly seize the initiative. To effectively execute hasty ambushes, the patrol must have well-developed and rehearsed battle drills based on established unit SOPs. This particularly includes pre-established roles for element leaders, adequate weapons and ammunition loads, signals plans for commencing and ceasing the ambush, and effective hand-and-arm signals. Hasty ambushes are more commonly executed when a patrol makes undetected visual contact with an enemy force that is vulnerable to attack.

All ambushes, whether deliberate or hasty, require some degree of planning and rehearsed SOPs and reaction drills. The degree of planning is ultimately based on the time available and the requirement to execute the ambush.

The route and ambush site considerations apply to both deliberate and hasty ambushes. Plan a primary route that allows the patrol to enter the ambush site from the rear is planned, and avoid entering the prospective kill zone. If the kill zone must be entered to emplace obstacles, care is taken to remove any tracks and signs that might alert the enemy and compromise the ambush. If command-detonated explosives are to be placed on the far side of the ambush site, or if the appearance of the site from the enemy's viewpoint is to be checked, a wide detour is made around the kill zone. Care is taken to remove any tracks that might reveal the presence of friendly forces at the ambush site. Plan an alternate route from the ambush site to the ORP, as in other patrols.

Maps, aerial photographs, and—when practical—organic manned or unmanned aircraft video recordings are used to carefully analyze the terrain. When time permits, a leader's reconnaissance of the ambush site is performed to confirm the site's suitability. Obvious ambush sites are avoided, as the element of surprise is even more difficult to achieve there. An ambush site must provide—

- Favorable fields of fire.
- Occupation and preparation of concealed positions.
- Canalization of the target into the kill zone. (An ideal kill zone restricts the enemy on all sides, confining them to an area where they can be quickly and completely destroyed. Natural obstacles, such as cliffs, streams, embankments, or steep grades are used whenever possible to force vehicles to slow down. Man-made obstacles such as wire, explosive obstacles, and road craters are used to reinforce natural obstacles to delay or fix the enemy within the kill zone.)
- Covered routes of withdrawal that enable the ambush force to break contact.
- Avoidance of enemy pursuit by fire.

Developing the Task Organization. An ambush patrol is typically task-organized into assault, support, and security elements. The assault element executes the ambush. The support element fixes the enemy with direct fires and is prepared to provide additional personnel for tasks such as litter bearers and detainee handlers. It may also be responsible for controlling supporting arms. The security element secures the ORP, isolates the ambush site, and provides protection and early warning to the assault element. Planning for the task organization of an ambush requires clear understanding of the enemy to be ambushed, its capabilities, and the commander's desired end state.

Occupation of the Ambush Site. Plans must be clear for searching the area surrounding the ambush site for evidence of enemy presence prior to occupying it. Ambush formations are selected to physically deploy the patrol in a manner to inflict maximum destruction on the enemy while retaining maximum security for the patrol.

Selection of Positions. Plans for the patrol's movement to the ambush site from the ORP include emplacing security first to prevent surprise while the ambush is being established.

Automatic weapons are planned to be in positions to deliver fires along the entire kill zone. If this is not possible, overlapping sectors of fire are provided to cover the kill zone. The patrol leader must select a favorable position from which to control and initiate the ambush. Positions and sectors of fire are planned for riflemen and grenadiers to cover any dead space not covered effectively by the automatic weapons. The patrol leader plans a time in which positions are to be prepared and completed. Patrol members should be directed to clear their fields of fire as much as possible and prepare their positions, taking care to camouflage both.

Selecting a Suitable Objective Rally Point. An easily located ORP is planned and made known to all patrol members. The ORP is planned to be located far enough from the ambush site so that it will not be overrun if the enemy assaults or counterattacks. Plans to reconnoiter routes of withdrawal to the ORP are developed, as well as plans that permit each Marine to walk their route to build familiarity, if the tactical situation allows. These withdrawal plans should also be able to be executed during limited visibility. Communication and signal plans must be clear for terminating the ambush, searching the kill zone, and withdrawing to the ORP to reorganize for the return movement. Additionally, plans must be established for withdrawal under contact in case the ambush is not successful and the patrol is pursued. Plans for a withdrawal from the ORP should consider movement techniques, such as bounding by elements or assigning trail elements tasks as a delaying force. These forces may be employed to briefly halt pursuing enemy or to employ command-detonated explosives along the withdrawal route to further delay pursuit. Delaying forces may also halt an enemy force's advance by employing previously coordinated indirect fires paired with limited scale attacks.

Establishing Local Security. Plans for security must be maintained during all phases of the ambush. Security elements do not usually participate in the initial attack, but protect the rear, flanks, and the withdrawal through the ORP. The security element may also provide initial defense against a pursuing enemy following an unsuccessful ambush to permit time for the assault element to displace from the ambush site. It could control supporting arms to further delay and confuse pursuing enemy forces.

Control. Continuous control of the patrol is maintained during movement to the ambush site, its occupation, the initiation of the ambush, and during withdrawal from the ambush site through reentry of friendly lines or areas. Control is best established through effective planning, rehearsals, and good communication plans. Control is particularly important as the enemy approaches the ambush site. Marines must employ tactical patience and resist the temptation to open fire before the signal is given.

The patrol leader must develop effective plans to control all elements of the ambush force, as well as fire support, while remaining aware of potential enemy counteractions. Control measures are

developed to aid in control and to assist the patrol in understanding how the ambush is to unfold. These control measures must provide for—

- Early warning of enemy approach.
- Fire control (the patrol should hold their fire until the enemy moves into the kill zone, then open fire at the proper time).
- Initiation of appropriate action if the ambush is prematurely detected.
- Timely and orderly withdrawal of the patrol from the ambush site and movement to the ORP.

An ambush patrol should have four distinct signals:

- A primary and alternate signal to open fire (used at the same time).
- A signal to cease or shift fire.
- A signal to assault or search the kill zone.
- A signal to withdraw.

The signal to open fire should meet two criteria. First, it should be the firing of a weapon that will kill the enemy. Second, it should be a weapon that is reliable in any weather condition. A good primary signal is a command-detonated explosive, while an alternate signal could be a closed bolt weapon (i.e., service rifle). Open bolt weapons should not be considered to initiate an ambush, as they have the potential to misfire. Marines should be aware of the possibility of having to resume fires following the patrol leader's signal to cease fire, but never after the signal is passed to assault or search the kill zone.

Surprise and Violence. Surprise, massed fires, and overwhelming violence of action provide an immense shock to the enemy force being ambushed. Enemy personnel that are not in the kill zone can become mentally paralyzed and unable to focus on what actions to take to counter or move away from the ambush fires. Surprise is critical for the ambush to succeed. If complete surprise cannot be achieved, it must be so nearly complete that the enemy is not aware of the ambush until it is too late to react effectively. Surprise is achieved through careful planning, preparation, and execution so the enemy is attacked in a manner for which it is least prepared.

Coordinated Fires. Properly timed and delivered fires contribute heavily to achieving surprise, as well as to effective destruction of the enemy. The lifting or shifting of fires must be equally precise; otherwise, the assault is delayed and the enemy has an opportunity to recover and react. Indirect fires may also be used to pursue fleeing enemy when targeted along predictable avenues of egress. All weapons, obstacles, and demolitions are positioned and all direct and indirect fires are coordinated to achieve the following results:

- Isolation of the kill zone to prevent the enemy's escape or reinforcement.
- Surprise delivery of a large volume of highly concentrated fires into the kill zone.
- Withdrawal of Marines from the area, if under pursuit.

Tactical Patience. The Marines participating in the ambush must exercise exceptional self-discipline to ensure that the ambush is not compromised by excessive movement or noise that may alert the enemy to the ambush's presence. Tactical patience is exercised by remaining still and

quiet while waiting for the enemy to enter the kill zone, particularly if the patrol occupies the ambush site well ahead of the enemy's arrival. Tactical patience is critical to avoid alerting the enemy to the ambush. During longer ambushes, the patrol leader may consider relieving Marines at the ambush site back to the ORP to rest or eat. The patrol leader must balance this requirement very carefully with the tactical situation.

Executing the Ambush

As previously discussed, time is a critical factor in planning and executing an ambush. How a patrol executes an ambush depends primarily on whether the purpose of the ambush is harassment or destruction. When the primary purpose is harassment, the patrol seals off the area with security teams to prevent enemy reinforcement or escape. Maximum damage is inflicted with demolitions, automatic weapons, and indirect fires. The patrol delivers a very heavy volume of fire for a short time and withdraws quickly and quietly, avoiding being seen by the enemy.

When the primary purpose of the patrol is destruction, the area is sealed off with security units. Maximum damage is inflicted with demolitions, antiarmor weapons, automatic weapons, and indirect fires from the support element. When these fires cease or shift, an assault is launched into the kill zone with heavy fire and violence to complete destruction. The assault unit provides security while designated teams search and/or capture personnel and destroy vehicles and equipment. On the patrol leader's command or by prearranged signal, all units withdraw to the ORP and withdraw quickly.

When the patrol's primary purpose is to obtain supplies or capture equipment, security units seal off the area. Demolitions and weapons are used to disable vehicles or cause enemy personnel to dismount, forcing columns to halt. The assault unit must use care to ensure its fire does not damage the desired supplies or equipment. Designated teams quickly and efficiently locate and secure the desired items, after which other teams destroy enemy vehicles and equipment with military explosives, thermite grenades, heavy weapons, or antiarmor fires. Speed is very important since the noise of the ambush could alert other nearby enemy units.

The most successful ambush is one where the attacker is deployed and concealed so that the enemy is unknowingly surrounded by fire. The usual method is for the attackers to deploy themselves along a trail or route the enemy will travel. The enemy is permitted to pass by the center of the attacker's force so that the attack can be made from the front, flank, and/or rear. One or two Marines are posted well forward and to the rear along the route to prevent any enemy from escaping in either direction. All fires should be delivered simultaneously on a prearranged signal.

An effective method of luring the enemy is for an ambush patrol to cut communications or electrical wires. The patrol then deploys and ambushes enemy repair crews when they arrive. Since repair crews may be protected by riflemen, the attackers must be careful to engage the entire party. Vehicles and foot-mobile personnel moving on well-established transportation routes can sometimes be captured by altering or moving directional signs to divert the enemy into an area where they can be more readily attacked. The attack can best be accomplished at a natural obstacle, such as a stream, wash, or wadi that forces the enemy to stop or slow down.

SECURITY PATROLS

Purpose of Security Patrols

Security patrols are missions that may or may not require engaging enemy forces and are conducted during offensive, defensive, or stability activities alike. Security patrols may be used to enhance the defensive security posture of critical areas, infrastructure, or facilities. They may be conducted either outside of friendly positions to provide early warning of enemy activity, or internally to prevent insider threats. Security patrols can also deter, detect, or repel enemy infiltration against friendly force positions. During offensive operations, security patrols may be used to augment larger security missions to the flanks and/or rear of moving forces, including critical areas and routes. During defensive operations, security patrols may be used to detect and prevent enemy infiltrators from conducting surprise attacks or sabotaging critical infrastructure. The requirement to conduct security patrols increases exponentially in rear or static areas, such as airfields, ports, and other facilities that are commonly occupied by the aviation combat and logistics combat elements of the MAGTF. These areas may also have a higher potential for insider threats from host nation forces or from personnel contracted to support MAGTF operations. In areas such as these, consideration for both internal and external security patrols is essential to ensuring force protection. In any situation where there is a threat of attack, all Marines, regardless of their military occupational specialty, must know how to conduct security patrols and understand the importance of their tasks. Refer to chapter 10 for scouting techniques to uncover insider threats.

Task Organization and Equipment

Task-organizing and equipping a security patrol depends largely on the enemy situation and the anticipated likelihood of contact. A security patrol must be organized, armed, and equipped to overcome resistance without becoming decisively engaged with larger enemy forces. Generally, a rifle squad or similar sized element is considered ideal for conducting security patrols. Larger security patrols can be organized around the structure of a rifle platoon or provisional infantry platoon. A security patrol leader should utilize the unit's standard organization (i.e., fire teams, squads, and platoon) in assigning functions and patrol missions.

Communications equipment must have the range necessary for the patrol to be able to communicate throughout the entire patrol route. Signals can be used as a secondary means of communication. Devices such as flares or whistles permit communication when primary means are inoperable.

Security patrols must also balance task organization and equipment considerations with mission requirements, the environment, the threat capabilities, and time constraints. Longer-range security patrols may need to carry additional sustainment items or to establish patrol bases to expand their operational reach. During a security patrol, a meeting engagement with the enemy may require battle drills or immediate action drills that require all elements to be prepared to assume the task of security, support, or assault element based on the distance, direction, and the element engaged with the enemy at the time of contact. Further, it must be emphasized that for smaller patrols, all members are responsible for security during movement.

Every security patrol must—

- Have a headquarters to provide a control mechanism.
- Designate a security element (i.e., a fire team or squad) to provide security while moving.
- Designate a support element to provide a base of fire in the attack or to cover withdrawals or advances.
- Designate one or more assault elements to conduct an attack or assault.

Planning Considerations

All procedures and planning considerations for patrols presented in the previous sections are considered and tailored to the mission as required. Security patrol planning considerations include, but are not limited to—

- A clear understanding of the perceived threats and typical TTP they employ.
- Primary and alternate route plans using varied routes and times to avoid establishing patterns.
- Rehearsals.
- Immediate action drills, both internal and external to friendly areas/lines.
- Patrolling within the proximity of friendly units and fire support.
- Establishing and maintaining communications through primary and alternate means.
- The weapons available and the type of fires required to support or repel the enemy.
- The detainee plan.
- Support by organic weapons.
- Reinforcement plans.
- Logistic plans.
- Coordination for the exit and reentry of friendly lines or areas.
- Debriefs.

Techniques

Within rear areas, an irregular patrol pattern should be established and changed daily. Outside of friendly lines or areas, a pre-planned route for each patrol should be established and coordinated with adjacent units through the COC. The patrol must have defined and rehearsed plans for what to do if contact with the enemy is made, how to break contact, how to defend itself, and how to call for supporting fires. It is also imperative that patrol members know what to do if they become split or separated (e.g., the location of rally points and procedures for linking up with nearby friendly forces).

CONTACT PATROLS

Purpose of Contact Patrols

Contact patrols may be assigned during offensive, defensive, or stability activities, and serve two general purposes—gaining contact with the enemy or gaining contact with friendly forces. The contact patrol's organization and size are predicated upon its purpose, its potential for engagement

with enemy forces, and its required combat power to accomplish its tasks. A contact patrol may require increased personnel, dedicated fire support, weapons, and equipment to fight through enemy screening forces to locate the enemy force main body. Contact patrols operate on mission orders and are given the flexibility to operate as independently as possible to accomplish their assigned mission.

Gaining Contact with Enemy Forces

Contact patrols may be tasked to gain contact and/or maintain contact with enemy forces—either keeping them under observation (i.e., visual contact) or engaging them (i.e., physical contact) to keep enemy forces preoccupied and facilitate other tactical actions or military deception tasks.

This type of contact patrol must be provided clear tactical tasks regarding the desired form of contact, as well as clear orders on what to do if contact is not made.

Gaining Contact with Friendly Forces

Contact patrols can be tasked to gain contact with friendly forces in order to share or coordinate information, to increase shared awareness of the friendly and threat situation, or to facilitate transit or passage of control. The development of modern technology has reduced—but not eliminated—the need for contact patrols with other friendly or partnered forces. They are more likely to be used when Marines must contact a partnered or coalition force which lacks compatible communications or satellite enabled position location and reporting equipment. They may also be directed to engage with local political, militia, or tribal leaders—gaining intelligence and supporting IO objectives by spreading messages to promote support and discredit the enemy or adversary. Typically, contact patrols may either meet at another unit's position, or the units may meet at a designated contact point coordinated between unit commanders. The leader of a contact patrol may typically be directed to provide the contacted unit with information about the location, situation, and intentions of the parent unit. The leader receives and then reports collected information about the contacted unit back to their own unit. The contact patrol may also be tasked with reconnaissance tasks to provide information on the area between the two units that is pertinent to current or future operations, such as information on route trafficability, obstacles, or key terrain.

Task Organization and Equipment

Task-organizing and equipping a contact patrol requires close consideration, as each patrol may be different based on METT-T considerations. The requirements for a patrol largely depend on whether its purpose is to gain contact with friendly forces or an enemy force. In either case, knowledge of both friendly and enemy situations is paramount in determining the equipment to be carried and tasking and organizing personnel, balanced against the mission and threat. Patrols made to establish contact with enemy forces are organized, armed, and equipped to overcome the resistance of light screening forces in order to develop the situation for the parent command. They are not organized and equipped to become decisively engaged in combat with the main forces of the enemy. As with any patrol, reliable communications for reporting are critical, and must be able to extend over the entire distance covered for the duration of the patrol.

Planning Considerations

Contact patrols are planned like any other combat patrol. Since a contact patrol may be tasked with a specified tactical task and a series of implied tactical tasks, unit commanders should carefully evaluate and balance the specified mission, enemy situation, intended capabilities, and

task organization of the patrol, and establish a clearly defined end state. In planning a contact patrol to find the enemy, freedom of action is imperative to attain the desired end state of the contact. When making contact with friendly forces, a contact patrol will likely be given more specific tasks regarding—

- Who to make contact with.
- What the tasks are to be accomplished upon making contact.
- When the contact is to be made.
- Where the contact should occur.
- Why the contact is important.

Other planning considerations should include—but are not limited to—

- Defining a clear understanding of the contact patrol's purpose.
- Providing intent and the desired effects of contact.
- Providing the criteria for breaking contact (driven by the situation or threat).
- Delineating the duration of contact (time driven).
- Providing general tasks (e.g., harassment, interdiction, or visual observation) for patrols to establish contact with the enemy.
- Providing specific tasks (e.g., determining and providing the locations of friendly/enemy units or route information, establishing contact points, or marking lanes) for patrols to establish contact with friendly units.

Techniques
The commander assigning a contact patrol provides the patrol leader with a clearly defined series of objectives, such as maintaining contact with friendly or partnered unit movements or establishing contact points to share information, situational awareness, or route information to conduct passages of lines. Objectives may include harassing enemy forces, increasing pressure, causing them to deploy or displace keeping them off balance and continually in a reactive state. Contact with the enemy is maintained for the purposes of—

- Surveillance.
- Applying pressure.
- Preventing the enemy from seizing the initiative and taking decisive action.

The patrol continues to employ a variety of methods to accomplish its tasks, such as using fires (i.e., direct, indirect, or aviation) balanced with military deception. The patrol leader provides clear situational awareness of both the patrol's and enemy's actions/reactions, reporting actions taken and their results. Once an objective is reached, the patrol leader initiates a planned set of actions to establish and maintain contact with the enemy. These plans and actions are guided by the mission—to establish or maintain contact physically through fires and limited attacks, or to establish and maintain contact visually, not engaging in combat.

RECONNAISSANCE PATROLS

All commanders require accurate, timely information about the enemy and the terrain to assist them in decision making. Reconnaissance patrols are one of the most reliable means of obtaining general or specific information about the operational environment. Reconnaissance patrols engage the enemy only when necessary to accomplish their mission or in self-defense. Effective reconnaissance patrols rely on stealth as much as possible and generally avoid combat.

Purpose of Reconnaissance Patrols

The purpose of reconnaissance patrols is to collect information on the operational environment for the commander to support decision making. To collect on required intelligence requirements for the commander, a reconnaissance patrol may be employed into areas that are concealed from observation by manned or unmanned aircraft sensors, or in localized areas beyond the range of ground observation. The distance covered by reconnaissance patrols is largely dependent on the technique utilized, balanced against METT-T considerations and mission requirements. Smaller units such as infantry squads are ideally suited for reconnaissance patrols due to their relatively small size and familiarity working together. Reconnaissance patrol missions can range from collecting information about the indigenous population in the AO to collecting information on the enemy situation, potential threats, and other adversaries by observing—

- The strength, location, disposition, and equipment of threat forces.
- The location of and activities at installations and other critical facilities to identify weaknesses.
- Key terrain and both natural and man-made obstacles, such as routes, bridges, stream crossing/ fording sites, minefields, or contaminated areas.
- Sociocultural and other human factors about the population (e.g., routines, patterns of life) to establish a baseline of understanding and to better identify anomalies.

Fundamentals of Reconnaissance

The reconnaissance fundamentals assist planners in tasking subordinate units to conduct reconnaissance missions. There are six fundamentals common to effective reconnaissance operations:

- Place maximum reconnaissance forces forward.
- Orient on the location or movement of the reconnaissance objective.
- Report all information rapidly and accurately.
- Retain freedom of maneuver.
- Gain and maintain threat contact (visually or physically).
- Avoid decisive engagement.
- Develop the situation rapidly.

Task Organization

The task organization of a reconnaissance patrol is chiefly determined by the mission essential reconnaissance tasks the patrol is required to accomplish. The degree and depth of tasks are determined by the unit commander's guidance, intent, and intelligence requirements the patrol

will collect on. A small reconnaissance patrol can be organized around the basic structure of the Marine rifle squad, with one or more of the squad's fire teams assigned as the reconnaissance element to reconnoiter or maintain surveillance over the objective, with at least one fire team acting as a security element.

In some situations, the commander assigning the patrol may consider attaching (or requesting support from) combat engineers, which can greatly increase the effectiveness and accuracy of reconnaissance information by conducting engineer reconnaissance on obstacles, bridges (e.g., load classification), the critical aspects of routes, and other information. Engineer reconnaissance is not a type of reconnaissance mission; it is a selection of technical tasks that can greatly enhance the reliability, accuracy, and technical detail of information collected during a reconnaissance patrol. This can include information on explosive and non-explosive obstacles, infrastructure stability, and routes, along with their critical points such as bridges and fording sites. For more information on engineer reconnaissance, refer to MCRP 3-34.3, *Engineer Reconnaissance*.

Reconnaissance Element. The reconnaissance element is responsible for reconnoitering the objective area once security is in position. The reconnaissance element is normally broken down into reconnaissance teams, which typically consist of four Marines each. However, depending on the tactical situation, the patrol leader may utilize teams with as few as two Marines per team. Small, light reconnaissance teams possess a lower signature, increase stealth, and reduce the potential of being detected by threat security forces. The reconnaissance element (as a whole or in small teams) collects specific intelligence items within the reconnaissance objective that are required by the mission.

Reconnaissance and Surveillance Element. The reconnaissance and surveillance element is normally employed in larger reconnaissance missions, such as a zone reconnaissance, when many reconnaissance tasks are required to be completed. However, it may be useful in any situation when it is impractical to separate the responsibilities for reconnaissance and surveillance tasks. The reconnaissance and surveillance element may also be broken down into small teams (i.e., reconnaissance teams and surveillance teams), which may separate for certain periods to accomplish tasks before rejoining as an element. Surveillance teams are provided very specific intelligence requirements to collect on by performing continual observation on a reconnaissance objective using long and short-range observation techniques. A reconnaissance and surveillance element's size and task organization is typically determined by the mission and the length of time which may be required to perform their tasks. When possible, teams should share tasks to allow one to rest at a hide site while the other conducts reconnaissance or maintains surveillance on the objective. A reconnaissance and surveillance element normally carries robust communications and optical equipment, and are allocated adequate fire support to defend themselves or be extracted prior to completing their mission. Reconnaissance and surveillance elements may be inserted by any means; however, they rely heavily on stealth, and are therefore typically foot-mobile. Reconnaissance and surveillance elements may be emplaced early, such as during a leader's reconnaissance, and left in place to continually update the unit's HHQ. These elements or their teams often support a follow-on unit action, such as a raid (providing guides to positions), or control fires when subsequent tactical actions take place.

Following the mission, the elements rejoin their units at a designated time or following a specific tactical event. Extensive thought must be given by the patrol leader and unit commander into

logistics and fire support for the reconnaissance and surveillance element, as it may operate independently for days while reconnoitering and surveilling the reconnaissance objective.

Security Element. When the responsibilities for reconnaissance and security are separated, the security element provides security at danger areas, secures the ORP, isolates the objective, provides early warning of enemy approach, and supports the withdrawal of the rest of the patrol once the reconnaissance is complete. The security element may have separate security teams, each with an assigned task or series of tasks that enable the reconnaissance tasks to be conducted.

Equipment

Like all patrols, members of reconnaissance patrols are armed and equipped as necessary for accomplishing the mission balanced against METT-T considerations. A reconnaissance patrol should consider carrying the following products and equipment at a minimum:

- Intelligence requirements to be collected on (which may or may not include named areas of interest [NAIs]).
- Long-range communications devices (e.g., satellite communications, satellite phone, or high-frequency radios).
- One map per element.
- Map overlay products.
- One pair of binoculars per element (may also include use of spotting scopes).
- Digital camera.
- One global positioning system (GPS) device.
- Two compasses.
- A pair of wire cutters in each element.
- Sketch materials.
- Pertinent reporting formats.
- Message books.
- Measuring devices, such as tape measures.
- Individual NVDs.

"As required" items may include:

- An organic UAS.
- Biometric identity devices.
- Thermal imaging devices.

TYPES OF RECONNAISSANCE PATROLS

Reconnaissance patrols are tasked to perform specific missions which are normally to support the intelligence collections requirements of an HHQ. Reconnaissance is an enduring task which supports all phases and types of MAGTF operations. The mission assigned to a reconnaissance

patrol may include several tasks and collection requirements, which can affect the size and duration of the patrol, along with its task organization. There are three types of missions reconnaissance patrols may be tasked to support:

- Zone reconnaissance.
- Area reconnaissance.
- Route reconnaissance.

Zone Reconnaissance

A zone reconnaissance can be conducted while either dismounted, mounted, or a combination of both. Its purpose is to collect detailed information on all routes (i.e., improved, unimproved, and cross-country), obstacles (both natural and man-made, including chemical or radiological contamination), terrain, enemy forces, or the civil population within a designated zone. A zone reconnaissance is typically assigned when the enemy situation is unknown, or when more information on the operational environment is required.

Conducting a zone reconnaissance is a deliberate and time-consuming process with many tasks. A zone reconnaissance typically covers extended distances, which may take several days or even weeks to complete. When the reconnaissance objective is centered on a potential threat, commanders may choose to forgo a detailed reconnaissance of the entire zone and focus collection assets on NAIs within the zone that address specific intelligence requirements. Due to the larger size of a zone and number of tasks assigned to a zone reconnaissance patrol (i.e., compared to an area reconnaissance patrol), zone reconnaissance missions are normally assigned to rifle company-sized units or larger. The subordinate units within the company (i.e., platoon and squads) typically perform tactical reconnaissance sub-tasks in support of the company's mission, such as area and route reconnaissance missions. Figure 3-1 shows a graphic depiction of a zone reconnaissance.

Critical Tasks. Critical tasks and planning considerations for a zone reconnaissance include—

- Finding, reporting, and—based on engagement criteria—clearing all threats and enemy forces within the zone, within unit capabilities.
- Determining the trafficability of all terrain within the zone, including built-up areas.
- Locating and determining the extent of all contaminated areas in the zone.
- Evaluating the capability and capacity of transportation infrastructure (e.g., bridges, tunnels, roads, and airfields) within the zone.

> *Note:* Only trained combat engineers are qualified to determine military load classification; however, a reconnaissance patrol can collect information required to assist engineers in bridge classification.

- Locating any fords, crossing sites, or bypasses for existing and reinforcing obstacles in the zone, including built-up areas.
- Reporting the above information to the commander directing the zone reconnaissance, and providing sketch maps and/or map overlays.
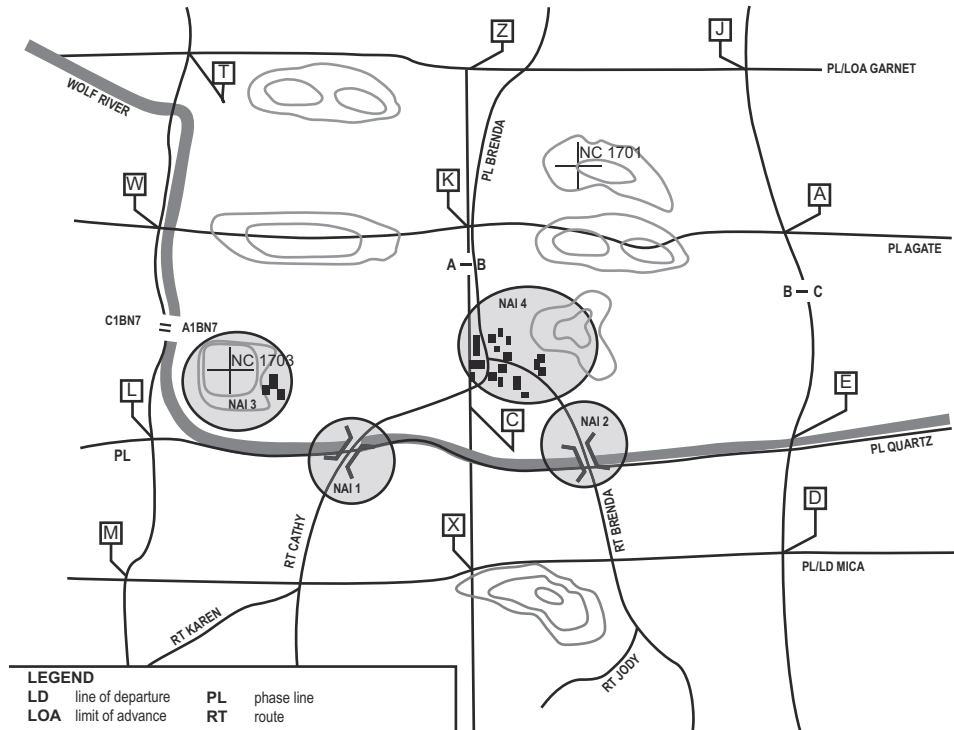
Figure 3-1. Zone Reconnaissance.

Planning Considerations. As stated earlier, a zone reconnaissance is very time-consuming mission. Therefore, it is critical for the commander assigning the zone reconnaissance to prioritize the tasks. If the commander does not specify which tasks to perform and which can be omitted, it is implied that all tasks are to be completed. When speed is the primary concern, commanders should modify the focus, tempo, and engagement criteria to prioritize the patrol's critical tasks. The width of the zone is determined by the quantity of road networks, terrain features, vegetation, water features, the anticipated enemy activity, and the time available to accomplish the mission. Manned or unmanned aircraft can be used in an economy of force role to observe areas beyond the direct observation of ground reconnaissance elements to assist them in covering potential gaps.

Area Reconnaissance

Like a zone reconnaissance, an area reconnaissance can be conducted while either dismounted, mounted, or a combination of both. An area reconnaissance collects detailed information concerning the terrain or enemy activities within a designated area, such as a town, ridge line, wooded area, or other areas that may be critical to operations. Area reconnaissance is normally conducted as part of a larger unit's zone reconnaissance, and typically focuses on specific terrain features or enemy forces within a zone. Units performing an area reconnaissance patrol may be required to reconnoiter one or more smaller areas to perform reconnaissance missions or tasks. The critical tasks for an area reconnaissance are the same as those for a zone reconnaissance. The primary difference between an area reconnaissance and zone reconnaissance is the smaller size of an area compared to a zone, and therefore, the smaller scope of the reconnaissance mission. In an area reconnaissance, all reconnaissance tasks are focused on the designated area to be

reconnoitered. To simplify the difference between zone and area reconnaissance, area reconnaissance should be considered a small zone and zone reconnaissance as a large area.

Areas identified and designated for area reconnaissance missions are typically depicted graphically as NAIs. Within the zone reconnaissance illustration in figure 3-1, there are several NAIs that depict the commander's focus for area reconnaissance. During an area reconnaissance, the patrol reconnoiters the area thoroughly, including dominant terrain, both from within and from outside the designated area. In doing so, the patrol confirms or denies the accuracy of previously collected information or collects new information for the commander. Patrols may also uncover additional information that was not previously requested which may drive additional intelligence collection requirements or assets. An area reconnaissance that is conducted as a separate, exclusive mission is generally shorter in duration. Like a zone reconnaissance, the unit commander prioritizes tasks to collect only what is required. In some cases, the area or routes that lead into an area may not need to be reconnoitered because those tasks are assigned to another patrol or unit, or because information has been previously collected or is in the process of being collected by another unit. There may be situations in which a commander only needs specific information about a single item within an area reconnaissance, such as a bridge or enemy facility. When this is the case, the commander assigns a point reconnaissance task. The patrol is provided with either specific intelligence requirements (e.g., collecting bridge data or supporting an engineer reconnaissance) or general intelligence requirements to collect upon at the objective to build understanding.

During area reconnaissance, the patrol leader halts and conceals the patrol near the objective area in the final preparation position. The patrol leader then conducts a leader's reconnaissance to pinpoint the objective and confirm the plan for positioning the security and reconnaissance teams to conduct the mission. Upon returning to the patrol, the patrol leader positions security to provide early warning of enemy approach and secures the ORP. The reconnaissance element then reconnoiters the objective area to collect intelligence requirements at the objective. The reconnaissance unit may be required to move to several positions around the objective area to conduct a thorough reconnaissance. When the reconnaissance is completed, the patrol leader assembles the patrol and members share what they observed before returning to friendly lines or areas.

Route Reconnaissance

A route reconnaissance collects detailed information on a specified route, as well as all terrain from which the threat could influence movement along it. Route reconnaissance may be oriented on a road, a cross-country mobility corridor, an axis, or a direction of attack. It provides updated and accurate information on route conditions such as obstacles, bridge data, and the presence and nature of any threat or civilian activities along or adjacent to the route. Typically, a route reconnaissance can be conducted more quickly than other types of reconnaissance missions because collection efforts are concentrated on the route and the terrain controlling it. A route reconnaissance may be performed while either dismounted or mounted, depending largely on the METT-T conditions, the environment, and the terrain. Mounted route reconnaissance may not be possible in more restrictive environments that limit and canalize vehicular movement, such as urban or jungle environments.

When the intelligence estimate indicates a route reconnaissance patrol may encounter explosive hazards, a combat engineer unit may be assigned to perform the route reconnaissance mission. The combat engineer battalion possesses unique equipment which can detect and destroy

explosive hazards that may be encountered. Theater commander guidance will describe the ROE for friendly force actions against explosive hazards. When there is a requirement to render explosive hazards safe, a team of EOD technicians may be assigned to augment the route reconnaissance patrol so they can be transported for intelligence exploitation, or if the theater ROE directs that only EOD technicians are authorized to dispose of certain types of explosive hazards. See MCRP 10-10.1 for additional details related to route clearance equipment, techniques, and procedures.

Critical Tasks. Table 3-1 lists the critical tasks and related planning considerations for route reconnaissance missions. The critical tasks can be oriented on the route trafficability, the enemy, the terrain, or a combination of these.

Table 3-1. Route Reconnaissance Critical Tasks and Planning Considerations.

Task Orientation	Critical Tasks	Notes/Considerations
Route Trafficability	Reconnoitering and determining the route trafficability, to include significant ascending or descending grades and critical curves, as well as overhead, width, or weight restrictions that may prohibit large vehicle movement. It also includes roadway material and condition and marking the locations of identified explosive and non-explosive obstacles."	Routes are classified based on the worst part of the route that could affect trafficability. These areas must be recorded, preferably by GPS data, and transmitted to HHQ. Additionally, the impact of weather should be assessed (e.g., how precipitation such as rain or snow could potentially degrade trafficability).
Route Trafficability	Evaluating all bridges, tunnels, defiles, underpasses, and culverts along the route.	Reconnaissance patrol units are not qualified to classify bridges and underpasses unless combat engineers are included in the task organization. However, they can be trained to collect the required information (i.e., recording the exact location, measurements, and descriptions of critical components) for transfer to engineers, who can use it to evaluate and classify bridges for use by MAGTF forces.When the patrol anticipates encountering these structures that are considered critical, attaching combat engineers should be considered.
Route Trafficability	Locating fords, crossing sites, and bypasses for natural and man-made obstacles (i.e., both explosive and non-explosive) along the route, including urban and built-up areas.	Conducting these tasks requires specific guidance from the unit commander to focus and prioritize efforts. Generally, the patrol looks for bypasses and fording sites when a bridge is encountered within climates characterized by high precipitation. Conversely, the patrol may not be as concerned about these tasks in more arid climates.Guidance could include priorities, the numbers of bypasses or fording sites, the identification of sites suitable for wheeled or tracked vehicles, and the approximate number of vehicles that could use the fording or crossing site. This includes collecting information on water movement velocity and bottom conditions, and computing the entrance/exit slope grade, which requires time. Additionally, it must be considered that these sites normally degrade when used if they are not improved by engineers for prolonged use.Therefore, multiple sites may be desired, and attaching engineers may be advisable to evaluate potential improvements. Bypass routes around natural or man-made obstacles and built-up areas are classified, recorded (i.e., GPS is preferred), and marked when possible.

Table 3-1. Route Reconnaissance Critical Tasks and Planning Considerations. (Continued)

Route Trafficability	Reporting all route information, to include providing either a sketch map or a route overlay (preferred).	
Route Trafficability and Threat	Reconnoitering all defiles along the route, clearing threat forces that could affect movement, and identifying obstacles and locating suitable bypasses.	
Threat	Finding, reporting, and clearing all threat forces that can influence movement along the route.	The specified engagement criteria directed by the unit commander determines what types of threats the patrol may engage. When threats could contain armor or other mechanized capabilities, the patrol's capabilities must be considered in comparison.
Threat and Terrain	Reconnoitering all terrain that the threat can use to dominate movement along the route, such as chokepoints, ambush sites, pickup zones, landing zones, and drop zones.	
Terrain	Reconnoitering all built-up areas smaller than one square kilometer, contaminated areas, and lateral routes along the route to the limit of the unit boundary, or as directed.	If a lateral route intersects with an adjacent unit's AO, information about the route should be passed to the unit, which assumes the lateral route as it enters its area. These routes typically include contact points.

Planning Considerations. The reconnaissance patrol must understand whether time or mission completion is the priority before planning. Knowing this helps determine the level of detail to be used in accomplishing critical and optional tasks. Additionally, the patrol must know the start points and release points along the desired route. A patrol should be assigned no more than one route if threat contact is expected. Figure 3-2 displays a graphic depiction of a route reconnaissance. Additionally, the order may specify:

- Required actions to be accomplished at certain control measures.
- Instructions on reconnoitering adjacent routes.
- Unit boundaries.
- Phase lines.
- Named routes.
- Contact points.
- Limit of advance.
- Other reconnaissance objectives.
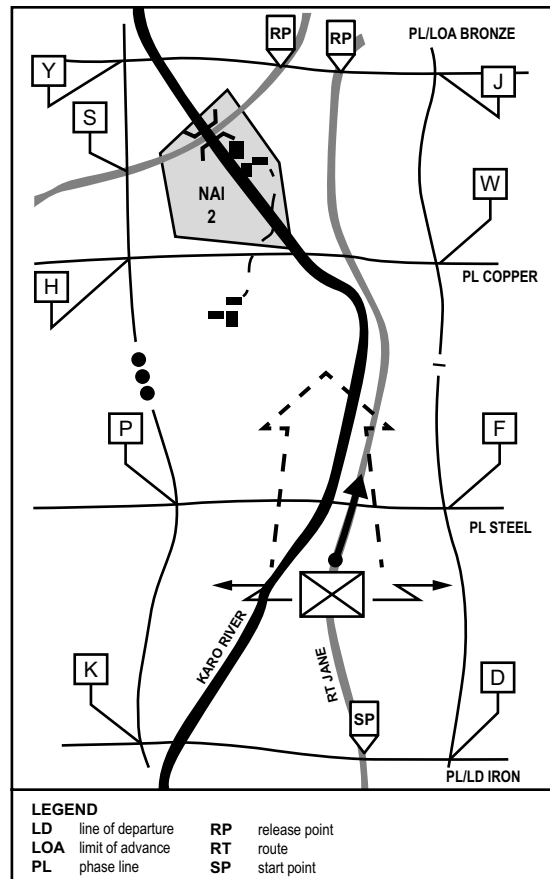
**Figure 3-2. Route Reconnaissance
Graphic Control Measures.**

TRACKING

Although not a type of patrol, tracking is a specialized function that can support both combat and reconnaissance patrols alike. Employing a tracking team may be required to collect detailed information that allows a unit to quickly exploit a weakness or develop a deeper understanding of how a threat operates. Marines trained in tracking enable patrols to conduct active reconnaissance of a threat's movement by following their trail sign or spoor. A tracking team is normally formed from a squad-sized or smaller element, and employs advanced tracking skills to locate the threat and determine their origin, composition, speed, equipment, destination, and likely intentions or purpose. The tracking team gathers information in a tracking log and provides detailed information in a tracking report. Reconnaissance or combat patrols may be formed around a tracking team and base their movement off the team's movement in following spoor. Tracking is discussed in detail in chapter 9.

CHAPTER 4.
MOVEMENT TO AND FROM OBJECTIVE AREA

MOVEMENT TO THE OBJECTIVE AREA

A patrol begins with a coordinated departure from friendly lines or areas and ends with a coordinated reentry back into friendly lines or areas. The exit or reentry of friendly lines or areas is also referred to as a passage of lines.

PASSAGE OF LINES

A passage of lines is an operation in which a force moves forward or rearward through another force's combat positions with the intention of moving into or out of contact with the enemy. (DOD Dictionary) It is a coordinated effort that facilitates the transition of forces when they must pass through each other. The detailed coordination of a passage of lines reduces the potential for fratricide, accounts for personnel and equipment, and denies a threat's ability to infiltrate. When a patrol exits or reenters friendly lines, the coordinated procedures for the passage are followed by all members of the patrol and the unit it is passing through. This helps to ensure all friendly forces are aware that Marines are moving out of or returning into friendly positions.

Departing Friendly Lines or Areas
During the initial preparation for the patrol, the patrol leader receives guidance from the unit commander on planning and coordination with the forward unit commander. In doing so, the patrol leader considers the following items in preparation for departing friendly lines or areas:

- Selecting the patrol's assembly area.
- Reconnoitering the route from the patrol's assembly area to the passage point or contact point with the forward unit commander where the patrol will depart friendly lines (when required).
- Requesting guides from the unit the patrol will exit through (when necessary).
- Performing a time-distance check to ensure the patrol departs the assembly area to the passage point at the designated time (when required).
- Reconnoitering the passage area designated by the commander.
- Confirming the locations of natural and man-made obstacles, gaps or lanes in them, and the locations of observation posts and other local security elements the patrol will pass through, in coordination with the unit commander responsible for passage area.
- Coordinating the route, size, mission, and departure time with the units being exited through.

- Ensuring that all radio frequencies, challenge and passwords, near and far recognition signals, and alternate signals are coordinated and understood.

- Coordinating and understanding the procedures for employing and activating CREW systems while exiting friendly lines.

- Selecting and coordinating the best possible route to and through the friendly lines passage point with as much concealment as possible from threat observation.

- Coordinating actions between the patrol and friendly units in the event of enemy contact during departure from friendly lines or areas to prevent fratricide.

Reentering Friendly Lines or Areas

Reentering friendly lines or areas is an exceptionally dangerous event in a patrol, particularly under limited-visibility conditions, or when contact with the enemy is frequent. Therefore, prior to departing friendly lines, the patrol leader coordinates the patrol's reentry with the receiving unit with the same degree of detail as the exit:

- Selecting and coordinating the patrol's return rally point, which serves as the patrol's last secure and covered position just outside friendly lines. If time and the tactical situation allows, the patrol leader and assistant patrol leader should perform a leader's reconnaissance with guides from the receiving unit to be passed through before the patrol.

- Coordinating all radio frequencies, challenge and passwords, near and far recognition signals, and alternate signals with the receiving unit.

- Coordinating reentry passage lanes or areas designated by the receiving unit.

- Confirming the locations of obstacles, gaps or lanes in them, and the locations of observation posts and other local security elements the patrol will pass through on the return.

- Coordinating the route from the patrol's return rally point outside friendly lines to the contact point (for mounted patrols) or passage point (for foot-mobile patrols) where the patrol will reenter friendly lines (if required). When able, the patrol leader should reconnoiter the route, selecting the best possible route to the passage point with as much concealment as possible from threat observation.

- Coordinating the size, mission, and estimated return times with the receiving unit to be entered through.

- Coordinating the location for deactivating CREW systems when reentering friendly lines.

- Coordinating actions between the patrol and friendly units in the event of enemy contact during the reentry of friendly lines or areas to prevent fratricide.

ORGANIZATION FOR MOVEMENT

The patrol's task organization establishes the elements and teams needed to accomplish the mission in the objective area and move to and from the objective. The patrol leader determines the formations to be employed based on METT-T considerations.

Formations for Movement

The proper use of patrol formations is critical to controlling the patrol, including its security and movement. The squad and fire team formations described within MCRP 3-10A.4, Marine Rifle Squad are adaptable to most patrol sizes for both mounted and dismounted operations. Ideally, the patrol's movement should be concealed from the threat by terrain. Controlling the patrol in this type of terrain is difficult, thus formations which provide increased control are preferred. However, formations that provide ease of control are typically tighter, placing Marines close to each other. Throughout the patrol's movement, the patrol leader assesses METT-T factors—particularly the terrain and the threat situation—to position, reposition, and adjust formations to better provide all-around security or increased firepower to the front or flanks of the patrol. As METT-T factors are uncovered, the patrol leader must make decisions whether to sacrifice some control for better dispersion or to give up a degree of speed for greater stealth and security.

Much of this can be obtained through a map study of the route, unmanned aircraft overflight, or satellite photographs prior to departure. Other considerations for movement may include those described below.

Unit Integrity. Preserving unit integrity is critical in patrolling to capitalize on the Marines' familiarity working together. Supporting and attached units (e.g., machine gun teams) are important throughout movement, so the patrol leader may need to adjust their positioning during the patrol. If teams or element of the patrol are detached, unit integrity and effectiveness is reduced or possibly lost. The patrol leader must continually analyze the location of these teams and elements and position them to maximize their employment and effects.

All-Around Security. All-around security from potential threats must not be sacrificed by a patrol under any circumstances. The conventional squad and platoon formations provide adequate firepower in any direction required. When attachments are made to the patrol, they are positioned within the formation to maximize their ability to support it. When units such as machine gun teams or squads are attached, they are incorporated by modifying conventional formations. While it is generally permissible to employ machine gun teams individually during movement, assault rocket squads and teams should be employed primarily as support units for movement since firing rockets from within a patrol formation can present a serious back-blast danger to other patrol members. Considerations for the employment of these weapons during contact with the threat (i.e., immediate action drills) should be planned, briefed, and rehearsed. Patrol leaders and other small unit leaders should keep in mind that all-around security can also include the positioning of CREW devices to protect the patrol (i.e., individuals in a foot-mobile patrol or vehicles in a mounted patrol) against the threat of RCIEDs.

Time. The time allotted for mission accomplishment is an important consideration. Commanders assigning units to patrols must weigh the purpose of the patrol and decide whether it is mission or time driven. If time is a decisive factor in the patrol's task and purpose, route selection will become a factor in selecting faster routes and movement formations that allow increased speed, and inserting patrols by ground or aircraft to increase speed. However, the patrol leader must never permit speed to force unduly rash tactical decisions or to sacrifice the security of the patrol.

Exercising Control

There is no standard location for a patrol leader to exercise control of the patrol from. Whether the patrol is mounted or foot-mobile, patrol leaders position themselves where they feel they can best observe the tactical situation and control the patrol. The assistant patrol leader normally moves at or near the rear of the patrol. Other subordinate leaders move with their elements and teams, keying their movement off other elements of the formation. Patrol leaders may designate a base unit to control the direction of the patrol, such as the headquarters element. When this is the case, the base unit controls the direction of the patrol, but the lead or point and flank elements control the pace of movement. All Marines in the patrol assist in control by staying alert and passing signals and orders while consistently maintaining visual contact with other members of the patrol. A signal to halt may be given by any patrol member, but the signal to resume movement is given only by the patrol leader.

The movement of dismounted or foot-mobile patrols is largely controlled using hand-and-arm signals as the primary means of communication. They should be used exclusively near threats or an objective area. All members must know the standard infantry hand-and-arm signals (refer to MCRP 3-10A.4), as well as any special signals briefed and rehearsed, and be alert to receive and pass them to other members. Audible signals (e.g., whistles) may be used in dismounted patrols if the patrol leader determines they are required. Audible signals are rehearsed during preparation for the patrol and must be simple, limited in number, and easily understood. Mimicking bird or animal calls should never be used. Radios may provide a means of positive control within a large dismounted patrol; however, radios should only be used when hand-and- arm signals or face-to-face contact between the patrol leader and subordinate leaders is impractical. In low visibility or dense vegetation, Marines must become comfortable relying on their hearing when visual observation is interrupted or impaired.

Control of mounted patrols is typically limited by the vehicles' capabilities and the terrain. In more open terrain, the patrol leader would designate a vehicle to base the patrol's movement from (often their own). All vehicles move as elements in formations, as directed by the patrol leader and the tactical situation. Mounted patrols rely heavily on radio communications between vehicles or elements as the primary method of exercising control; however, they may also employ signals to control elements of the patrol, such as hand-and-arm signals shared by vehicle gunners, lights, or even signal mirrors when operating at extended ranges.

The accountability of patrol members is an important aspect of control in both mounted and dismounted patrols, particularly after danger area crossings, enemy contact, halts, and when exiting and reentering friendly lines or areas. During a dismounted patrol, the patrol leader may arrange for the last member to send up the count automatically after crossing danger areas, enemy contact, and halts. In large patrols or when moving in a formation other than a column, subordinate leaders check their members and report the count to the patrol leader when requested by the quickest method appropriate to the circumstances. Mounted patrols report their counts by element (or vehicle) over the radio and when the last vehicle has cleared a control measure or danger area. In cases where mounted patrols dismount, the vehicle commander or element leader reports the dismounting of Marines and the reasons why. Vehicle commanders or element leaders continue to keep the patrol leader apprised of the tactical situation and report tactical actions. When dismounted activities have concluded, the vehicle commander or element leader reports when all Marines are accounted for and are back in their vehicles ready to continue the patrol.

Both mounted and dismounted patrols must maintain frequent visual contact to the rear of the patrol to ensure that no Marines or vehicles have been left behind or have broken off from the rear of the patrol.

Navigation. One or more members may be assigned as navigators for a dismounted patrol. Their function is to assist the patrol leader in maintaining direction using a map and lensatic compass or GPS device. The patrol leader assigns at least two members as pace counters (or pacers) to keep track of the distance traveled from point to point. The average of their count is used to approximate the distance traveled. Pacers are separated so they do not influence each other's count and must know how to convert their pace counts into meters. They must also know the effects that terrain (e.g., hills), dense vegetation, weather (e.g., snow), and low visibility have on their counts. Patrol routes are divided into increments referred to as legs. Each leg starts at a recognizable point on the ground. The pacers begin their counts from zero at the beginning of each leg. This increases accuracy and makes the pace count easier to record. The pace count is sent forward when the patrol leader turns to the nearest member behind and uses the hand-and-arm signal to send up the pace count. Both pacers send their counts forward for the current leg in meters, using hand-and-arm signals for numbers. While navigating during limited visibility, the patrol uses the same techniques as in daylight, but leaders exercise more care to keep the patrol oriented.

In mounted patrols, the patrol leader typically serves as the navigator or shares navigation duties with the lead vehicle of the patrol. The patrol leader navigates using maps, aerial photographs, gridded reference graphics (GRGs), GPS devices, and vehicle-mounted data systems that increase situational awareness, positioning, and connect to the CTP. The patrol leader can take distance measurements from the vehicle's odometer, GPS, or other digital systems.

> *Note:* Although some combat vehicle odometers display distance in kilometers, most display in miles and must be converted to kilometers.

As the patrol is conducted, the lead vehicle reports checkpoints, phase lines, danger areas, and other pertinent features across the patrol's designated tactical net. When the trail vehicle reaches these areas, they are reported again to provide situational awareness to the patrol leader of where all the patrol's vehicles are located.

Security. The principles of security apply equally to dismounted and mounted patrols alike. The assistant patrol leader is responsible to the patrol leader for ensuring that security is maintained throughout the patrol, as well as for personnel and gear accountability after long halts or following contact with the threat. The patrol is dispersed in a manner consistent with effective control, visibility, movement, cover, and concealment. Marines (or vehicles) are employed to the front, flanks, and rear of the patrol to provide all-around security according to the patrol formation. For Marines traveling in the main body of the patrol, sectors of observation and security are assigned to the front, flanks, and rear while moving and at halts. Marines providing security tasks provide early warning of threats to the patrol. They move when and where directed by the patrol leader and maintain contact with the patrol or element leader at all times, except when they have uncovered a threat or are momentarily obscured by vegetation or other terrain features.

Front. The point is responsible for investigating the route of advance immediately to the front of the patrol. The point moves as far ahead of the patrol as visibility and terrain permit to provide security, and may incorporate devices to counter explosive obstacles when required (e.g., hand-

held metal detectors, combat engineers with hand-held mine detectors, or vehicle-mounted mine rollers, depending on the patrol's mode of movement).

Small dismounted patrols (such as squad-sized elements) typically use two Marines as the point. However, they may employ from one Marine up to a fire team to serve as the point, depending on the threat situation, terrain, and route being followed by the patrol. When visibility is adequate, the point may precede the main body by as much as 100 meters. The point travels right and left ahead of the patrol, searching the area over which the patrol will pass. The point maintains direction by knowledge of the general route to be followed and visual contact with the navigator, patrol leader, or a designated Marine who maintains contact with both. If the point loses contact with the patrol, they wait for the main body to catch up, or move rearward if contact is not quickly regained. One of the navigators may be forward-positioned with the point to assist in navigation and allow the point to concentrate on observing the route. Two or more members may rotate between roles as the point and navigator so that the point can maintain a higher degree of alertness, allowing each to rest periodically and become more efficient observers.

Depending on the size of the patrol and the mission, mounted patrols usually have one vehicle with a crew-served weapon as the point. One member of the vehicle's crew may serve as a navigator to ensure the vehicle is traveling on the correct route.

Flank. Flank security for a foot-mobile patrol of squad size or less may be provided using one or two members on either flank. If two Marines are assigned to a flank, one is positioned to observe and maintain visual contact with the patrol leader while the other is positioned further out from the patrol. The "inside" Marine who maintains visual contact with the patrol leader remains within a maximum distance of 100 meters, dependent on the terrain. The one further out remains in sight of the "inside" Marine, but normally does not move more than 20-25 meters away. These two Marines may rotate regularly to maintain a high level of alert. Moving through dense woods or jungle may render the use of flank security impractical because of reduced visibility. In such cases, the flanks move with the body of the patrol, but maintain observation to their assigned flanks. Mounted patrols may employ variations of these techniques depending on the size of the patrol and METT-T, but will usually remain within visual observation as much as possible.

Rear. Within smaller dismounted patrols, one or two patrol members may be assigned as rear security, maintaining a visual interval between the last Marine of the patrol (not to exceed 50 meters). This member maintains rear security for the patrol by constantly observing to the rear while maintaining visual contact with the patrol ahead. Within mounted patrols, rear security is typically assigned to one vehicle with a crew-served weapon, depending on the size of the patrol. The rear security vehicle (or element) maintains observation to the patrol's rear, protecting it from attack. The rear security vehicle (or element) reports clearing all control measures and danger areas to the patrol leader.

To further enhance all-around security, element leaders within a dismounted patrol will also—

- Enforce strict noise and light discipline.
- Use radio listening silence.
- Employ camouflage.
- Use terrain to avoid detection by enemy surveillance or NVDs.

- Make frequent listening halts to stop, look, listen, and smell.
- Utilize naturally occurring sounds—such as rain, wind, and flowing water—to mask movement. This could include battlefield noise when possible.

Halts. Dismounted or mounted halts may be made for several reasons during a patrol, and may be designated as either short or long halts.

Short halts typically take one to two minutes. A dismounted patrol may halt when exiting or entering friendly lines to make coordination or to adjust to the environment by conducting "SLSS"—stop, look, listen, and smell. Both dismounted and mounted patrols may also conduct short halts to investigate possible threats, conduct reconnaissance, observe danger areas, account for Marines, provide additional time for elements of the patrol to catch up, or to listen for enemy activity. During a short halt, Marines in dismounted patrols seek nearby cover and concealment and take a knee, maintaining their assigned sectors of security, while element leaders assign sectors of fire as needed. Mounted patrols conduct short halts by pulling into formations that provide all-around security, orienting crew-served weapons along likely avenues of approach, and remaining observant of the area.

Long halts typically last longer than 10 minutes. When tactically feasible, the area selected for a long halt should provide adequate cover and concealment and be favorable to the patrol's defense. Long halts may be conducted to reestablish communications, send messages, eat, rest, distribute supplies, verify navigation, or perform more detailed reconnaissance or extended vehicle maintenance activities (such as changing a tire or recovering a disabled vehicle). Upon the signal to halt, dismounted patrols move to positions behind cover and concealment while assuming prone positions along their assigned sectors of fire and observation. Vehicles in mounted patrols halt and seek nearby available cover and concealment while continuing to monitor and observe their sectors of fire and observation, placing crew-served weapons along likely avenues of approach. The patrol leader may have Marines dismount the vehicles to provide additional security. Considerations for employing portable communications systems with dismounted elements may be necessary to enhance security and tactical awareness during a long halt. Element leaders or vehicle commanders ensure Marines have clear fields of fire and adjust or expand them when necessary. All-round security is established, and the patrol leader ensures all members or vehicles move out when the patrol resumes movement.

Movement Under Limited-Visibility Conditions

Visibility conditions, weather, terrain, and vegetation influence the dispersion and control of dismounted and mounted patrols. These factors may also affect the threat. If visibility is favorable for the patrol, it is also favorable for the threat. To help identify and see other members of a dismounted patrol during limited visibility, place two pieces of luminous tape on the back of the collar; turn the collar down when near threats or when contact is imminent. Luminous tape can also be worn on the back of the helmet or utility cover, but should be covered or removed when near the enemy. Luminous cat-eye helmet bands can also be worn on helmets, and can be darkened by flipping the band over. Mounted patrols may make use of vehicle black-out lights, black-out markers, infrared markers, and thermal panels. When visibility is poor, the following methods aid in control:

- The patrol leader selects formations that aid in movement while maintaining security.
- Element leaders move closer to the front.

- The patrol reduces speed.
- The patrol uses luminescent tape on equipment.
- The patrol leader may reduce the intervals between the elements and between individual Marines (or vehicles).
- The patrol leader takes more frequent head counts.

Noise discipline must be maintained during low visibility, since sound travels further at night. When required, the patrol leader of a dismounted patrol should speak just loudly enough to be heard. At night, or when close to the enemy, the patrol leader halts the patrol and has subordinate leaders come forward. They speak in low voices and pass the information to their subordinates by moving from member to member. Mounted patrols must use discipline when making a long halt at night outside friendly lines or areas to ensure vehicle noise is minimized and avoid attracting attention from threats. The sounds of Marines opening and closing vehicle doors, hoods, or hatches are distinctive and attract attention. Noise discipline is particularly important when vehicles' engines must be run to charge their batteries. Patrol leaders should seek to utilize as few vehicles as possible for radio and data systems terminal operation since they drain vehicles' batteries when the engines are shut off. This reduces the number of vehicles that are required to start up. When possible, portable radios may be employed, and vehicles should be started and shut off at the same time.

Night vision devices, such as personal NVDs (i.e., image intensifier or thermal), night aiming devices, infrared personnel markers, and infrared/visible light (i.e., hand-held or weapon-mounted) can be used as means of marking, sending, and receiving signals and maintaining control at night. With the proliferation of NVDs, caution should be exercised with using visible light or infrared light.

USE OF CONTROL MEASURES

Checkpoints
A checkpoint is a predetermined point on the ground used to control movement, tactical maneuver, and orientation. (DOD Dictionary) Checkpoints are a means of control between a patrol and its parent unit. These locations are coordinated to enable the patrol leader to report the patrol's location to its HHQ, allowing it to follow the patrol's progress without transmitting coordinates.

Rally Points
A rally point is a place designated by the patrol leader where the unit moves to reassemble and reorganize if it becomes dispersed or encounters an unexpected obstacle that was not briefed during the order. Rally points may or may not be identified during planning for the patrol.

Marines must understand which rally point to move to at each phase of the patrol if they become separated from the patrol. They must also know what actions are required at the rally point and how long they are to wait at each one before continuing. All rally points identified in planning are

considered tentative rally points until they are occupied, found to be suitable, and designated by the patrol leader. General criteria for selecting rally points include:

- They should be easily identifiable in both daylight and limited-visibility conditions.
- They should show no signs of recent enemy activity.
- They should be covered and concealed.
- They should be away from natural lines of drift and high-speed avenues of approach.
- They should be defendable for short periods of time.

Rally Point Selection. The patrol leader selects likely locations for tentative rally points during the reconnaissance or map study. A tentative rally point must be planned and briefed or passed during the patrol, after reconnaissance confirms suitability. A tentative initial rally point and a tentative ORP are always selected and identified in the patrol order. If necessary, the patrol leader selects additional en route rally points as suitable locations are uncovered. When the patrol reaches a danger area that cannot be bypassed, such as an open meadow or stream, the patrol leader selects a rally point on both the near and far side. If suitable locations are not found, the patrol leader designates the rally points in relation to the danger area; for example, "*50 meters this side of the trail*" or "*50 meters beyond the stream.*"

Rally Point Use. Each rally point has a specific purpose—to contend with a danger area or obstacle, or to develop a tactical situation. The identifying features of a rally point are pointed out while the patrol leader ensures that the locations of rally points are passed to all patrol members. Actions at rally points should always be rehearsed, whether they are part of the unit's SOP or not. The patrol's success may be jeopardized if it is dispersed and cannot rally expeditiously. The common rule for rally points is that if the patrol is dispersed for whatever reason, patrol members return to the last designated rally point (i.e., the initial or an en route rally point) unless the patrol leader has provided other instructions in the order.

Types of Rally Points. The most common types of rally points are initial rally points, en route rally points, ORPs, and near and far side rally points.

Initial Rally Point. The initial rally point is typically established on the first terrain feature immediately outside friendly lines, where the patrol halts when exiting or reentering friendly lines or areas. Initial rally points are not typically used by mounted patrols. The initial rally point's location is selected and coordinated with both the unit the patrol will exit through and the unit it will enter back through (if different). When exiting friendly lines, the initial rally point is used to make final adjustments to equipment, ensure local security, familiarize Marines with the environment's sounds and smells, and allow Marines to adjust their eyes if under limited-visibility conditions. When the initial rally point is used during reentry of friendly lines, it is used to contact the friendly force's security elements to coordinate the patrol's recognition and safe reception back into friendly lines, and to ensure accountability of Marines and equipment. Selecting the initial rally point follows the general rally point selection criteria listed above.

Actions at the initial rally point must be planned and rehearsed to ensure Marines understand all required actions.

En Route Rally Points. An en route rally point is established as required between the initial and ORPs, and may be used in either dismounted or mounted patrols. They may be selected during planning to allow time for Marines to rest, eat, or perform other necessary actions. More often, however, they are selected when the patrol leader encounters a situation that requires further time to investigate, consider tactical options, make a leader's reconnaissance, or make adjustments to the patrol's organization. Mounted patrols may also utilize them for vehicle recoveries or other maintenance activities.

Objective Rally Point. The ORP is located nearest to the objective, where the patrol makes final preparations prior to approaching an objective. An ORP can be planned in the same fashion for dismounted and mounted patrols alike. Typically, an ORP is established 200-400 meters from the objective, or at least one major terrain feature away. It also serves as a location where the patrol reassembles after completing actions on the objective. The ORP must be suitable to accommodate all required activities before the actions on the objective. This position must provide the patrol concealment from enemy observation, and—if possible—cover from threat fires. It may be located short of the ORP, to a flank, or beyond the objective. It should be out of sight, sound, and small arms range of the objective area. The patrol leader's reconnaissance of the objective area is usually conducted from this position. It also serves as the release point from which patrol elements and teams move to their positions on the objective to accomplish the mission. Mounted patrols do not typically use an ORP in conjunction with a long halt unless there is a requirement to conduct a longer dismounted reconnaissance or to prepare and emplace vehicle-mounted crew-served weapons to support an attack. The ORP is planned and rehearsed with a high degree of detail. Actions at the ORP include—but are not limited to—the following:

- Conducting "SLSS"—stop, look, listen, and smell—to familiarize with the environment.
- Determining the location of the objective area, and confirming navigation.
- Conducting a leader's reconnaissance of the objective (or objective area).
- Composing and issuing a fragmentary order (FRAGO), if required.
- Making final preparations before continuing operations, such as redistributing supplies, adjusting camouflage, preparing demolitions, preparing detainee cuffs/bindings, emplacing litters for wounded, inspecting and/or arming weapons, and lining up packs and other equipment for quick recovery and ease of exit.
- Taking accountability for Marines and equipment after completing actions on the objective.
- Reestablishing the chain of command after actions at the objective are complete.
- Disseminating information from reconnaissance, if no contact was made.

Near and Far Side Rally Points. Near and far side rally points are designated when either foot-mobile or mounted patrols encounter danger areas or obstacles (natural or man- made). Depending on the tactical requirements, mounted patrols may use a combination of dismounted and mounted movement techniques to reconnoiter and occupy the near and far side rally points. These rally points are used in conjunction with each other to maintain control of the patrol while passing through the danger area. The near side rally point supports the patrol as lead elements pass through the danger area to occupy the far side rally point. As the patrol passes through the danger area, the far side rally point expands as it receives more members of the patrol, assuming increased security and facilitating the remainder of the patrol's passage and personnel

accountability. If the patrol becomes separated or dispersed at a danger area and there has been no enemy contact, the patrol should reassemble at the far side rally point. However, if the patrol is separated or dispersed at a danger area because of enemy contact, members who have already crossed the danger area assemble and reorganize at the far side rally point, while members who have not crossed assemble and reorganize at the near side rally point. In the absence of the patrol leader and unless otherwise directed, the senior member at the near side rally point takes charge and attempts to move the rallied patrol members to the far side rally point to rejoin the patrol.

Rally Point Actions. The patrol leader plans the actions to be taken at rally points and instructs the patrol accordingly in the patrol order. These actions are rehearsed for both day and low visibility conditions to reinforce familiarity. Actions planned to be taken at the initial rally point and en route rally points must facilitate the continuation of the patrol as long as there is a reasonable chance to accomplish the mission. Plans for actions at rally points should provide for—

* Recognition signals for assembling at rally points.
* The minimum number of members and maximum amount of waiting time required before the senior member at the rally point moves the rallied patrol members onward toward the objective or returns to friendly lines.
* Instructions for patrol members who find themselves alone at a rally point.

Five-Point Contingency Plan. If the patrol leader separates from the assistant patrol leader, the patrol leader should give a five-point contingency plan using the memory aid, "GOTWA:"

* Where the patrol leader is **Going**.
* **Other** Marines the patrol leader is taking.
* **Time** planned to be gone.
* **What to do** if the patrol leader does not return.
* **Actions to be taken** upon any contact with the enemy.

DANGER AREAS

A danger area is any place on the patrol's route where the patrol is vulnerable to the threat's observation or fires. Danger areas can be natural or man-made, and apply to both dismounted and mounted patrols alike. Some examples of danger areas are—

* Open areas, such as fields or meadows.
* Deep valleys and draws.
* Roads and trails.
* Rivers, streams, and canals.
* Railroad tracks.
* Fire breaks.

- Urban areas, including small and large villages.
- Obstacles such as concertina wire and minefields.
- Locations near known or suspected enemy positions.
- Areas where IEDs have been previously discovered or where IEDs are likely to be encountered.

Types of Danger Areas

Each danger area presents a unique challenge for the patrol. Understanding that the patrol is vulnerable when crossing or bypassing them and having predetermined and rehearsed drills is critical to mitigate exposure to the threat. The types of danger areas are—

- Linear (e.g., roads, water features, large trails, draws, washes, and valleys).
- Open areas (e.g., meadows and fields).

Actions at Danger Areas

Danger areas should be bypassed whenever possible. Like any obstacle, Marines should consider danger areas to be covered with observation and fires. During planning, the patrol leader conducts a map reconnaissance (at minimum) to anticipate plans for bypassing or crossing each known danger area, and includes necessary tactical actions for contending with them in the patrol order and rehearsals. The basic steps for crossing a danger area—when necessary—are:

- Fires should be pre-planned on all known danger areas or prominent terrain that could provide observation over a danger area.
- Near and far side rally points are designated.
- Security is established on the near side, left and right flank, and rear. Mounted patrols may emplace vehicles with crew-served weapons to provide security along likely avenues of approach, and may dismount Marines to assist in local security for the vehicle or to conduct reconnaissance tasks.
- The danger area is reconnoitered to secure the far side. Mounted patrols may use a combination of mounted and dismounted movement to reconnoiter a danger area.
- The patrol crosses the danger area by element (or by vehicle) as ordered.
- The patrol ensures accountability for personnel and equipment as they cross the danger area and enter the far side rally point. Each element or vehicle assumes security positions for the far side rally point.
- The patrol exits the far-side rally point and reports any required information on the danger area.
- The patrol continues with the assigned mission.

Techniques for Crossing Danger Areas

Each danger area presents unique challenges. Linear danger areas present patrols with the threat of being engaged on their flanks as they expose themselves upon crossing or while traveling on the long axis. Open danger areas that do not afford cover and concealment may fully expose patrols to enemy direct and indirect fires. Canalized terrain may be used by the enemy to conceal explosive hazards and obstacles, such as IEDs or land mines. Water features may expose Marines during crossing, leaving the patrol vulnerable to enemy observation and fires. Additionally, when

crossing danger areas, patrols should guard against potential meeting engagements where the patrol's organic fire support capabilities may be separated between the near and far sides of the danger area. Table 4-1 contains common considerations for crossing danger areas.

Table 4-1. Common Danger Area Considerations.

Danger Area	Considerations
Open Areas	Conceal the patrol on the near side and observe the area. Post security to give early warning. Send an element across to clear the far side. When cleared, cross the remainder of the patrol at the shortest exposed distance and as quickly and quietly as possible.
Roads and Trails	Cross roads or trails at or near a bend, a narrow spot, or on low ground.
Villages	Pass villages on the downwind side and well away from them. Vehicles should reduce speed to reduce dust and noise signatures. Avoid animals, especially dogs, which might reveal the presence of the patrol.
Enemy Positions	Pass on the downwind side (the enemy may have dogs). Be alert for trip wires, explosive obstacles, and warning devices. Indirect fires may be used to divert the enemy's attention.
Water	Select a narrow spot in the stream that offers concealment on both banks. Observe the far side carefully. Emplace near and far side security for early warning. Clear the far side and then cross as rapidly and quietly as possible.
Obstacles	Avoid or bypass obstacles whenever possible. Assume that the enemy is covering them with observation and fires.

Linear Danger Areas. Regardless of the patrol's movement technique (i.e., dismounted or mounted), it is critical that all patrols maintain effective security postures while crossing linear danger areas. For dismounted patrols, a road, trail, or water feature is crossed at or near a bend, or where the road or stream is most narrow. Observation is more restricted in these areas, and if threats are present, the patrol is exposed for as short a time as possible. For mounted patrols, linear danger areas are most frequently streams and other water features, along with fording points and bridges used to cross them, where Marines be tasked with conducting dismounted reconnaissance and security tasks. Effective unit SOPs, drills, and rehearsals are critical to success.

The following basic steps for crossing linear danger areas, displayed in figure 4-1, are adaptable for the infantry squad and platoon:

Step 1. The point observes the linear danger area and sends the designated hand-and-arm signal through the patrol to the patrol leader, who determines whether the linear danger area will be crossed or not. If it will be crossed, the patrol leader determines the technique for crossing to the far side.

Step 2. If the decision to cross is made, the patrol leader assigns a near and far side rally point, and directs the rear security element to move forward to the right and left to provide overwatch positions prior to the point or reconnaissance element crossing to reconnoiter the far side. The patrol leader ensures fires are planned/coordinated and reports the situation to HHQ as required.

Step 3. The patrol leader gives the command for the point or reconnaissance element to move across the danger area, reconnoiter the far side, and establish the suitability of the far side rally point.

Step 4. The patrol leader receives the hand-and-arm signal signifying it is safe to move the rest of the patrol across (with the rear security element still providing overwatch). As each element of the patrol crosses the danger area, they are covered by those remaining and by those who have successfully crossed. Once across, the point or reconnaissance element occupies the far side rally point. It may provide guides for the following elements of the patrol as the far side rally point expands.

Step 5. The patrol leader moves with the headquarters element across the danger area. The last element to cross the linear danger area in front of the rear security element assumes security on the flanks as the rear security element crosses.

Step 6. Once all elements of the patrol have entered the far side rally point, accountability of Marines is quickly determined and the patrol resumes its original azimuth of travel at the patrol leader's command.

When a patrol encounters multiple linear danger areas near each other, the patrol leader should consider crossing them as a single linear danger area.
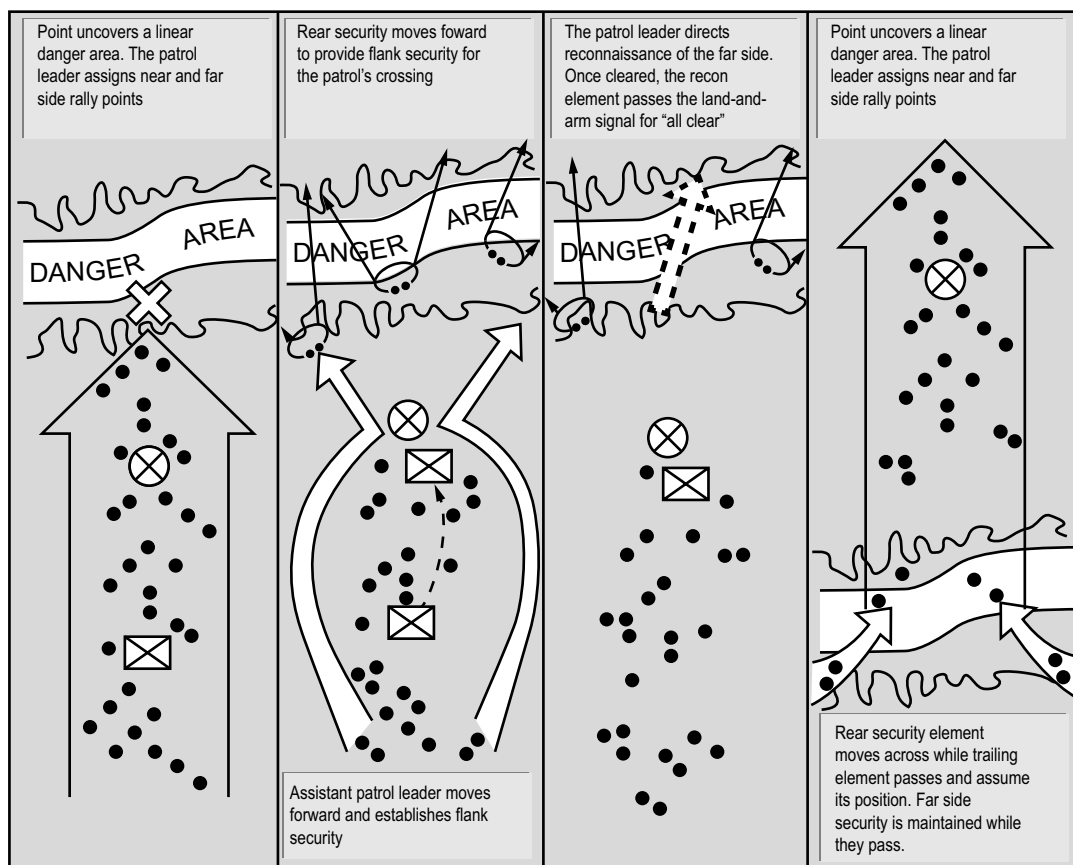
Figure 4-1. Crossing a Linear Danger Area.

Open Danger Areas. When open areas are uncovered, the patrol should seek a bypass to avoid being caught in the open and risking being decisively engaged from multiple directions. Like a linear danger area, Marines should consider open areas to be covered with observation and fires. Effective SOPs, drills, and rehearsals are critical to success. The following basic steps for crossing open danger areas are adaptable for squad-sized and larger patrols (refer to figure 4-2):

Step 1. The point observes the open danger area and sends the designated hand-and-arm signal through the patrol to the patrol leader, who halts the patrol.

Step 2. The patrol leader moves forward to assess the open area and determines which bypass method will be selected—detour or contour.

Step 3. Once the bypass method is selected and passed to the patrol members, the patrol leader assigns near and far side rally points.

Step 4. The pace counter suspends the current pace count and initiates an interim pace count. The alternate pacer/navigator moves forward and offsets the compass heading 90 degrees left or right (as designated), and moves in that direction until clear of the danger area.

Step 5. After moving around the open area, the lead element assumes the original azimuth, and the primary pace counter resumes the original pace count.

Step 6. After the open area, the alternate pace counter and navigator offset the compass heading 90 degrees left or right, and lead the patrol back the same distance back to the original azimuth of travel.
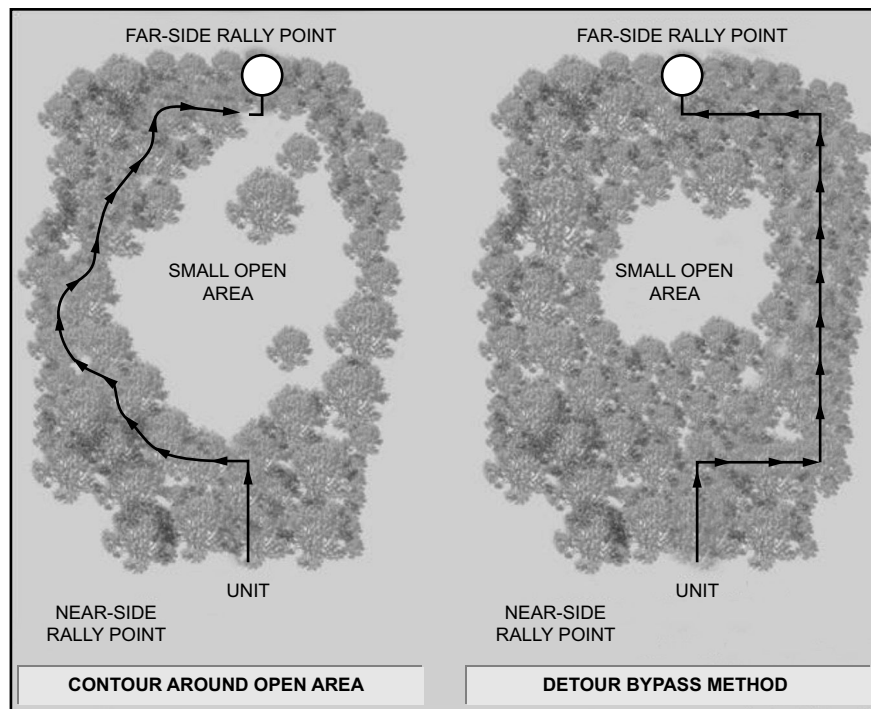
Figure 4-2. Open Area Bypass Methods.

The contour method is best used when encountering small open areas. For very large open areas that cannot be feasibly bypassed, the patrol selects movement formations that provide dispersion and maximum firepower to the front and flanks of the patrol.

Considerations for Crossing Danger Areas in Environments with an IED Threat

The most common danger areas for IEDs are natural constrictions in terrain through which friendly forces must pass (e.g., chokepoints, bends in roads, or main intersections). When crossing danger areas, the focus is generally external (i.e., searching for enemy presence).

However, when crossing a danger area with an IED threat, a patrol must focus both inward and outward during all movement. Personnel should be particularly observant of changes in the baseline (e.g., ground signs, disturbed soil, markers, and absence of the normal) while crossing a danger area, as these can indicate the presence of a recently placed IED. The patrol leader should use all available enablers to determine the presence or absence of IEDs while crossing a danger area. Enablers can include organic optic devices as well as enabling equipment (e.g., metal detectors, mine detectors, holley sticks, military working dogs, and UASs). Using protective equipment, such as CREW, while crossing a danger area to jam RCIEDs. The basic considerations for crossing danger areas that may include an IED threat are isolate, sweep, and move:

Step 1. Isolate the area from enemy activity. An element of the patrol must be focused outward to prevent or react to enemy fire in the danger area. These same Marines also scan for signs of emplaced IEDs (such as command wires) or threats that may initiate RCIEDs. If available, CREW systems may be employed.

Step 2. Sweep the danger area with appropriate detectors according to the type of IED threat. This could include systems capable of detecting high-metallic content, low- metallic content, or command wires via mounted or dismounted means, depending on the situation and composition of the patrol. For example, vehicle-mounted mine detectors or hand-held metal detectors may be used to detect IEDs or IED components. In recent combat experience, devices like holley sticks were effectively used to detect command wires in canals, around culvert openings, and at the entrances to compounds.

Step 3. Move through the danger area using the same techniques and considerations as discussed within table 4-1 while maintaining protection from command-detonated devices and RCIEDs until the patrol has safely crossed the danger area.

Formations Used in Linear or Open Danger Areas with an IED Threat

Avoiding linear or open danger areas may not always be possible. For example, dismounted or mounted patrols tasked with route reconnaissance or route clearance may be forced to travel on the long axis of a road, exposing the patrol to explosive hazards or enemy ambush at chokepoints or in canalized terrain.

The column formation is well suited for movement in areas where IEDs have been emplaced to target dismounted patrols, including where secondary IEDs are suspected to have been emplaced. The column formation allows increased control and rapid movement through lanes that have been swept for explosive hazards. See figure 4-3 for an example of the squad column formation navigating an area containing IEDs.
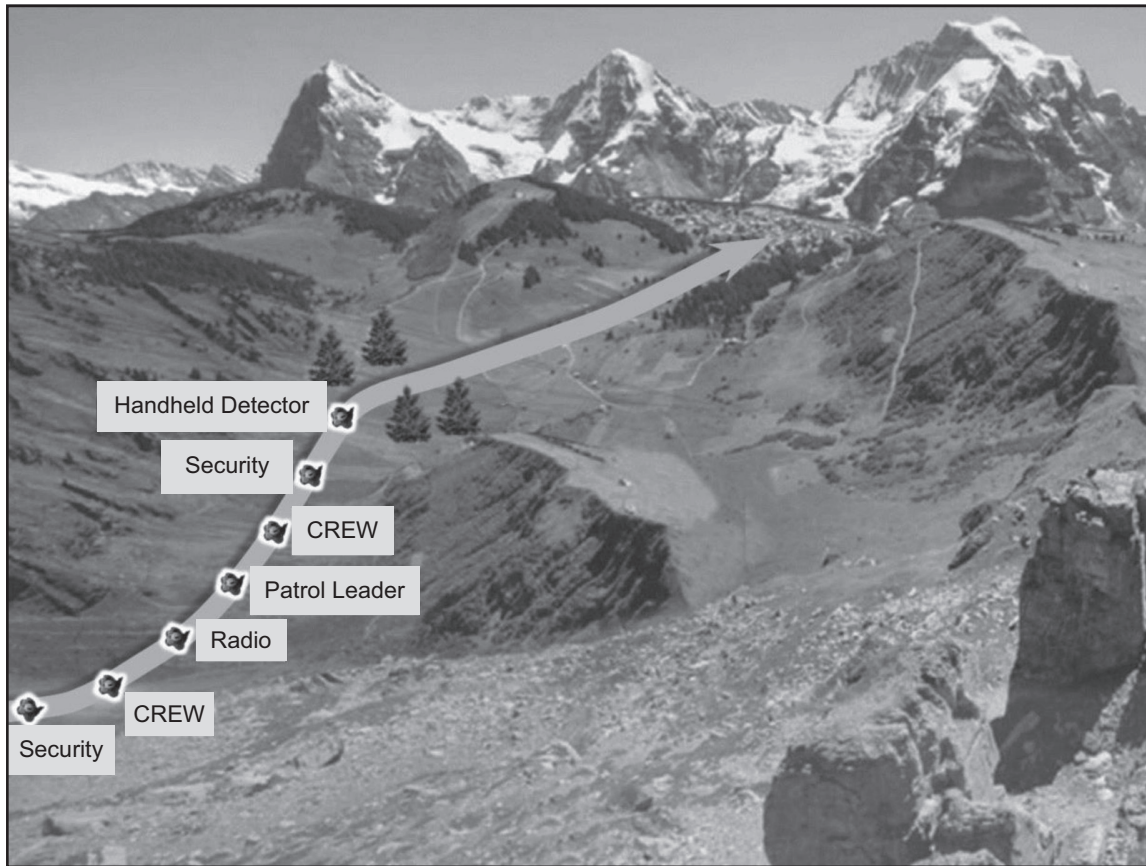
Figure 4-3. Dismounted Squad Column.

Depending on the terrain and enemy situation, the V-sweep formation is one technique for transiting long stretches of road or trail that the patrol must use where IEDs have previously been discovered or employed. In a permissive environment, it can be used to cause small, outmatched enemy elements to displace or to identify explosive hazard indicators prior to approaching or entering potential danger areas. It also offers multiple vantage points over the traveled area which aid in detecting threats. However, this formation is vulnerable to enemy attack on its flanks and is not appropriate when contact with organized enemy ground forces is possible. The elements of a V-sweep formation (see figure 4-4) include the following:

- *Kill teams*. The kill team is responsible for clearing the area of potential enemy before they can trigger command-detonated explosives or initiate an ambush. They may be employed 150-250 meters from the road and 200-300 meters ahead of the search teams, depending on the terrain. As a secondary mission, they may search for explosive hazard indicators, such as command wires, discolored or disturbed earth, or roadside debris.

- *Search teams*. The search teams are employed on the shoulder of the road (if paved) or the edge of the travel way (if unpaved) and are responsible for visually searching for indicators of explosive hazards on the road and up to 10 meters on either side.

- *Sweep team*. The sweep team is responsible for confirming or denying the presence of explosive hazards along the route using metal or mine detectors and other available detection equipment, such as hand-held sniffers, mobile jammers, military working dogs, or unmanned ground or aircraft systems (i.e., robots or drones).
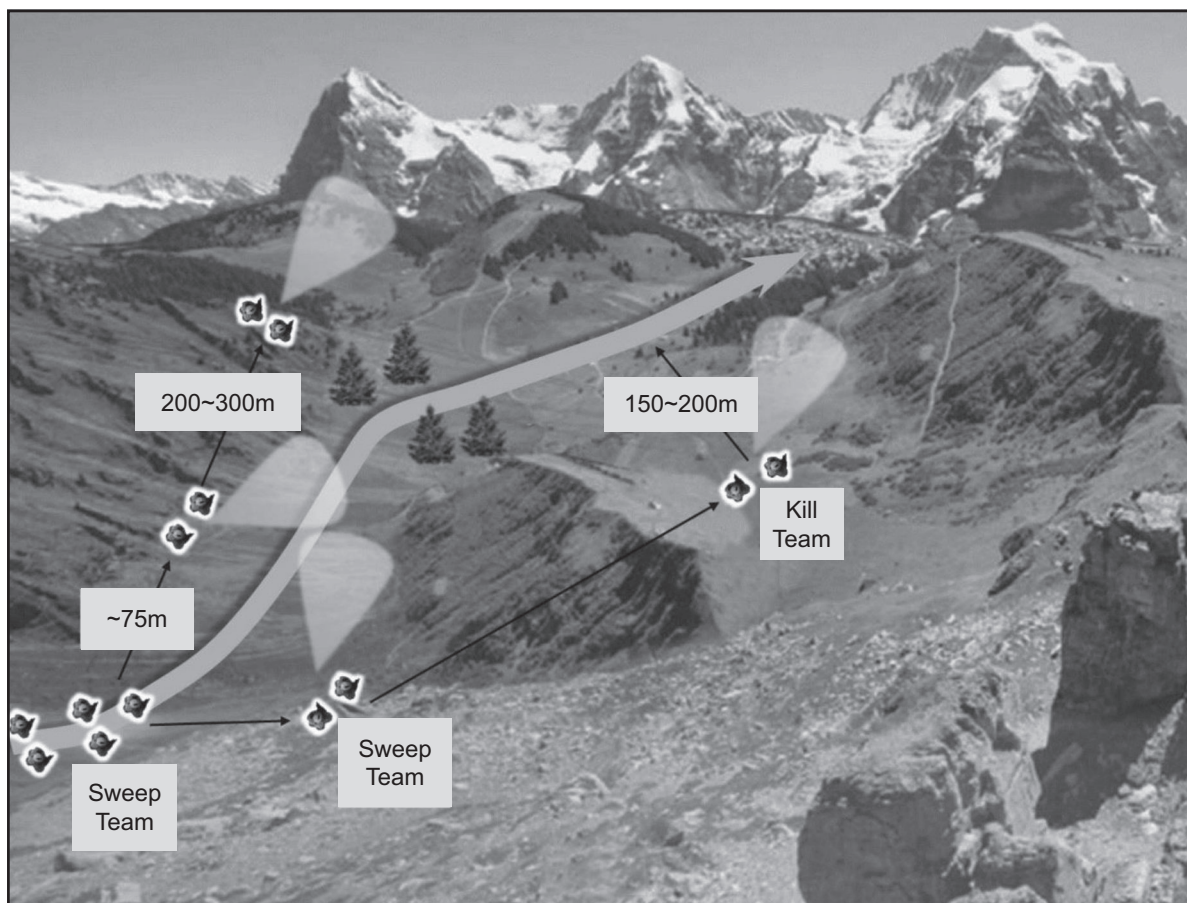
Figure 4-4. Dismounted V-Sweep.

Patrols may encounter canalized terrain or cross single points within linear or open danger areas where no readily available bypass is available and where IEDs may be expected. Examples include wadi crossings, culverts, and bridges. One formation used by a mounted or dismounted patrol in this instance is known as the box reconnaissance, where dismounted elements of the patrol conduct a box-shaped sweep of the danger area ahead of the mounted patrol, searching for visual indicators of explosive hazards (see figure 4-5).

Considerations for Crossing Water Features

Water features such as streams, creeks, canals, and rivers are generally treated in the same manner as other linear danger areas. However, the added dangers of water—and crossing water features in general—require additional scrutiny, increased detail in planning, and rehearsals, with associated pre-combat checks and inspections. It is imperative that all planners involved in selecting and approving patrol routes understand the characteristics of the size, width, depth, and velocity of the water features to be crossed. It is critical for mounted patrol leaders to understand the basic principles discussed for foot-mobile patrols and have a working knowledge of their vehicles' capabilities and limitations. Crossing water features with mounted patrols can be inherently more difficult and may require engineer reconnaissance.
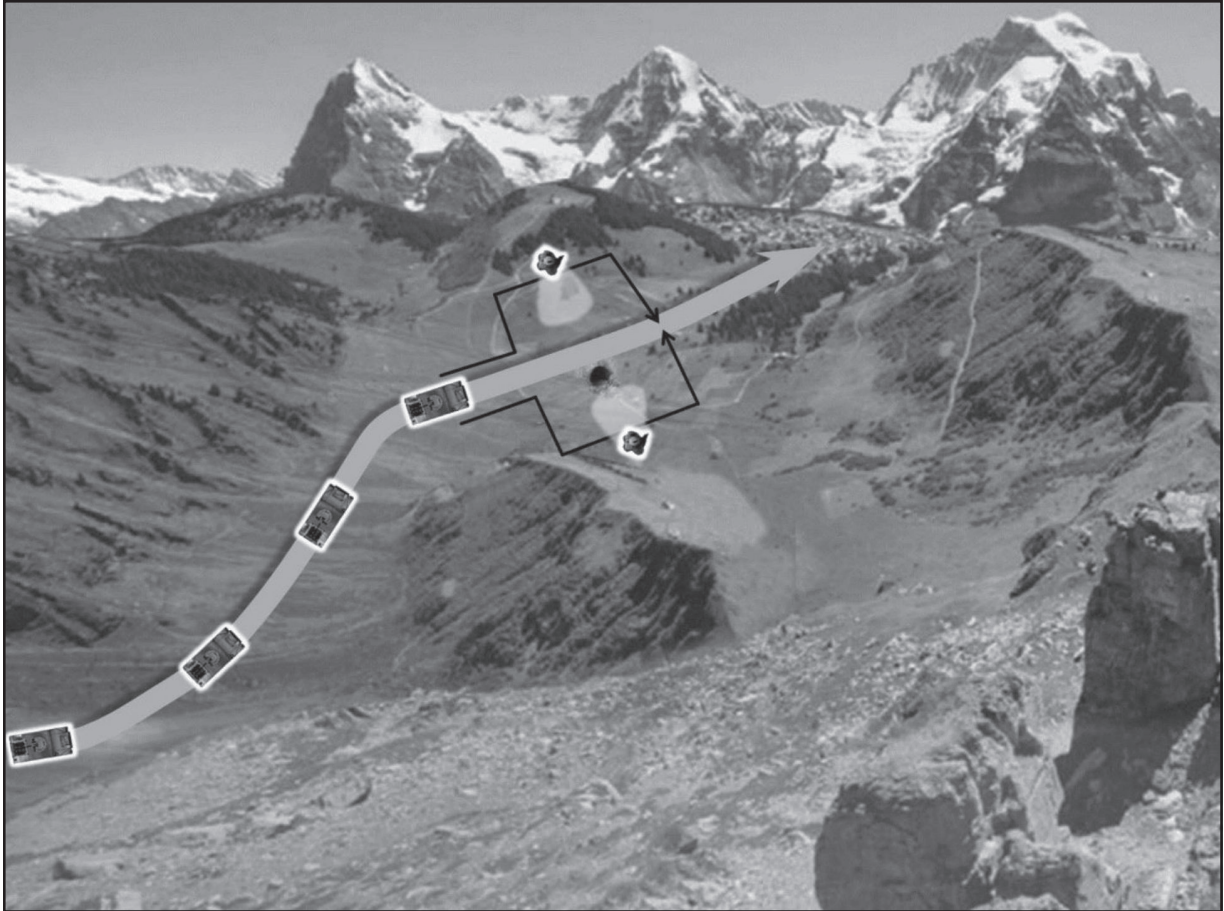
Figure 4-5. Box Recon.

Deeper water features (i.e., over four feet in depth), or those that have a current velocity that does not permit straight travel across them, incur a much higher degree of risk for foot-mobile patrols. Deep water that requires swimming or rafting places Marines at risk of drowning, losing equipment, or being swept away to areas beyond the patrol's security elements. Additionally, Marines are exposed for longer periods in water when moving across larger water features. If engaged while swimming or rafting across a water feature, Marines cannot move quickly to cover or concealment or employ their weapons effectively.

During planning, the commander assigning the patrol should be able to provide intelligence to the patrol leader that depicts the width, average depth, and likely velocity of water features. When possible, additional intelligence on a water feature could also depict the terrain adjacent to the planned entry and exit points of the water on the patrol route.

Accurate intelligence may not always be available, which requires detailed alternate route planning or engineer reconnaissance. For example, a patrol has planned a route across a water feature without adequate intelligence. As the patrol reaches the shoreline, they find the route has led them to a very steep cliff and fast-moving water with a far side exit point that appears identical. The patrol leader realizes that they cannot cross and must find a suitable crossing point, or else the patrol may have to abort the mission.

If time or the tactical situation do not permit a leader's reconnaissance, the patrol leader should seek to obtain a recent aerial photograph or aircraft overflight (either manned or unmanned). If adequate intelligence is unavailable, these concerns should be addressed in the commander's orders to the patrol leader in the form of go/no-go criteria for crossing water features. This may be found in the unit's SOP. If the patrol must cross the water feature, the patrol leader should ask to adjust the patrol's departure to cross under limited visibility, which incurs an even higher degree of risk. All plans for large water crossings should be fully assessed for operational risks, thoroughly inspected, and rehearsed in detail. Orders should address the following unique items for crossing water features, at minimum:

- Any changes to security positioning at the crossing site.
- Any changes to the teams for crossing.
- Preparation and safeguarding of equipment.
- Special equipment, such as the employment of safety ropes to span the water, waterproofing packs for flotation, and personal flotation devices.
- Employment of qualified combat water survival and safety swimmer teams.
- Equipment to be worn (and not worn) during crossing.
- Drills for losing a Marine downstream and rally point procedures for self-recovery.
- Limited-visibility marking and signals (e.g., luminous tape, red lens, or infrared lights).

Similar to crossing other linear danger areas, the near bank is reconnoitered first, then the patrol is positioned to cover the far bank. Marines are sent across to the far bank to reconnoiter the far side. After the far bank has been reconnoitered and reported clear of threats, the patrol crosses as rapidly as possible. This may be done individually; however, crossing water features in pairs should be considered. If crossing the water feature requires swimming, the patrol leader may choose to utilize improvised rafts (either flotation devices or field expedient methods, such as packs lashed together) to ferry heavy equipment, weapons, and ammunition across. As in selecting crossing sites for other linear danger areas, such as roads and large trails, a water feature is crossed at or near a bend, or where the water is narrow. Observation is likely more restricted, and—if the enemy is present—the patrol is exposed for as short a time as possible.

Selecting areas that pass near rushing water are ideal in helping mask the sound of movement. For more information on water survival, refer to MCRP 8-10B.6, *Marine Corps Water Survival*.

PATROL HIDE SITES

Hide sites are primarily used by foot-mobile patrols, although there may be tactical situations when a mounted patrol requires one, such as a mounted reconnaissance patrol tasked with reconnoitering a subsequent unit or command post position. With the obvious challenges of hiding combat vehicles aside, the principles and considerations listed below apply equally. Hide sites are

selected when a patrol is required to halt for an extended period in areas not protected by friendly forces. The patrol leader selects a location within the surrounding terrain which provides passive security from enemy observation and detection.

A hide site may be established to—

- Cease all movement during daylight hours to avoid detection.
- Hide the patrol for an extended period while the patrol leader conducts an extended or more detailed dismounted reconnaissance of an objective area or large danger area.
- Rest and reorganize the patrol after an extended or difficult movement.
- Perform critical vehicle maintenance.
- Reorganize after a patrol after it has infiltrated threat areas in small groups.

The patrol leader's plan must include tentative hide locations when the situation may dictate an extended halt within enemy areas. These tentative locations must be confirmed by reconnaissance prior to occupying them. The plan for occupying a hide site must include both active and passive security measures. Active security measures include the following:

- Establishing security covering all likely avenues of approach into the site. For mounted patrols, this may incur ground mounting some vehicle-mounted crew-served weapons.
- Directions for the camouflage of vehicles.
- Camouflaging entries and exits into the hide site.
- Establishing communications (e.g., wire, radio, signal, or runners) with security to provide early warning of threat approach.
- Selecting an alternate area for occupation if the original hide is compromised or found unsuitable.
- A plan for withdrawal in the event of being compromised.
- Establishing an alert plan with a certain percent of the personnel awake at all times.
- Determining which vehicles will man or dismount crew-served weapons and radio watch vehicles.
- Organizing the elements of the patrol so necessary activities can take place with a minimum amount of movement.

Passive security measures for hide sites include the following:

- Avoiding built-up areas if possible.
- Selecting an area that is remote (i.e., away from human habitation).
- Selecting areas that will not likely lay in natural lines of drift for human travel.
- Avoiding known or suspected enemy positions.
- Avoiding ridge lines, topographic crests, valleys, lakes, and streams.
- Avoiding roads and trails.
- Avoiding open woods and clearings.
- Selecting areas with dense vegetation, preferably bushes and trees that spread out close to the ground.

The size of the area physically occupied by a patrol in a hide site and the number of security posts required are governed by the terrain, the quantity and quality of cover and concealment, and the patrol size. If the situation permits, a hide can also be used as a final preparation position or an ORP.

PATROL LEADER'S ACTIONS IN DEVELOPING THE SITUATION

The familiar adage by German military strategist Helmuth Von Moltke states that "no battle plan survives first contact" still rings true today, as every tactical situation has the potential to develop differently than anticipated. Effective patrolling is dependent upon detailed planning, flexibility, and effective and efficient rehearsals. The patrol leader must develop a plan that can quickly adapt to the tactical situation as it unfolds. During planning, the patrol leader envisions the patrol's anticipated actions and where along the route key tactical decisions may be required. By anticipating these tactical decisions, the patrol leader refines the plan by analyzing the tactical requirements needed for each decision and developing flexible plans to contend with them, then briefing them to the patrol and rehearsing them in detail. One of the most difficult tasks in any tactical situation is to anticipate the next tactical decision and recognize the correct moment for making a decision, along with the required action. While no one can anticipate or plan for every tactical decision, it is critical for the patrol leader to identify the most likely major decisions that must be made, where they will likely have to be made, and when to make them. When tactical situations demand decisions, they must be made promptly to seize the initiative without waiting for more information. In a developing situation, the patrol leader may use the following basic questions as a guide for making and anticipating tactical decisions:

- Where is the threat, what are they trying to achieve, and where are they trying to achieve it?
- What are the critical tactical decisions that will likely have to be made?
- Is the patrol prepared, briefed, and able to contend with these tactical decisions?
- Do the element leaders within the patrol know the major tactical decisions that are anticipated and where the patrol leader will have to make them?
- What is the next tactical decision that will likely have to be made and where on the route will it most likely have to be made?
- Must a decision be made now?
- What are the options?
- Which tactical option best serves the mission and the unit as a whole?
- Which tactical option offers the greatest chance of success?
- How has the situation changed for the threat or for the patrol?
- How does the change affect mission accomplishment and the unit commander's mission?

For more information on decision making, refer to appendix H.

ACTIONS ON CONTACT

Contact with a threat may occur in two forms—visual contact and physical contact. All patrols, regardless of their tactical tasks, must be prepared for contact with the enemy or other possible threats at any time.

Visual contact occurs when the patrol uncovers the threat first, while remaining undetected itself. When visual contact is made, the patrol leader can decide whether to initiate physical contact or avoid it, based on the patrol's mission and ability to successfully engage and defeat the threat. Visual contact may also include the discovery of mines or other explosive hazards, such as IEDs.

Physical contact may be intentional (such as in combat patrols) or a meeting engagement where both the patrol and the enemy uncover each other simultaneously. Regardless of how physical contact is initiated, the primary concern for the patrol leader is to rapidly position the patrol on the enemy force, gain fire superiority, and inflict as much initial damage in the opening moments of the engagement as possible (refer to figure 4-6). Physical contact typically includes—

- Meeting engagements where each force encounters each other simultaneously.
- Attacks conducted by an undetected enemy force, such as an ambush.
- IED detonations.
- Minefields.
- Aerial attacks.
- Manned or unmanned aircraft overflight.
- Effective enemy indirect fires.

Immediate Action Drills

Rehearsed immediate action drills provide a means for swiftly initiating rapid and effective offensive or defensive actions that may be required to preserve the patrol's ability to complete its mission. Immediate action drills are rehearsed until they become second nature. Any time that new members, teams, elements, or changes in leadership are introduced in the unit, these actions must be retrained in detail to maintain a high degree of proficiency and effectiveness. Immediate action drills minimize the need for excessive signals or commands, and are developed as needed for the tactical situation. In many cases, the signals can be initiated by any member of the patrol. It is not feasible to attempt to design an immediate action drill to cover every possible contact. It is better to know the immediate action drills well for a limited number of situations that may occur during a patrol. Hand-and-arm signals associated with common immediate action drills are contained in MCRP 3-10A.4. Knowledge of the operational environment and the study of threat TTP are helpful in developing the most likely immediate action drills for actions and counteractions.

Visual Contact Immediate Actions. Visual contact occurs when a patrol discovers an enemy force that has not detected it yet, whether the patrol is mounted or dismounted. Since all obstacles should be considered to be covered by fires and observation, visual contact also applies to threats that potentially present an explosive hazard.

REACT TO CONTACT

ENEMY

- Seek nearest cover.
- Return fire (known or suspected enemy position).
- Element leaders control fire by using fire commands.
- Report enemy situation (number/position).
- Maintain contact (visual/oral) with patrol members.
- Patrol leader moves to team in contact and makes an assessment of the situation.
- Factors of the assessment:
  – Can the patrol move out of the engagement area.
  – Can patrol gain and maintain suppressive fire.
  – Location of enemy.
  – Vulnerable flanks.
  – Covered/concealed flanking routes.
- Patrol leader selects a course of action. (break contact, immediate attack, etc.)
- Report situation to patrol leader.

Figure 4-6. Reacting to Physical Contact.

Dismounted. Immediate action drills are based upon a patrol's mission requirements and tactical situation. When the patrol detects the enemy, but is not itself detected, the first member visually detecting the enemy gives the hand and arm signal to freeze. Every member halts in place, weapon at the ready, and remains motionless and quiet until further signals or orders are given. Visual contacts can also include obstacles, minefields, undetonated IEDs, and both manned and unmanned aircraft. Potential tactical decisions and actions for visual contacts include—

- Maintaining contact by tracking, observing, and reporting a moving enemy's activities.
- Maintaining contact by conducting further reconnaissance on a stationary enemy force's activities.
- Avoiding or breaking off visual contact by remaining in place and allowing moving enemy forces to pass.
- Avoiding or breaking off visual contact by adjusting the patrol route to move away from or around a stationary enemy force.
- Initiating physical contact by establishing a hasty ambush (refer to chapter 3).

Every Marine is a collector. Therefore, in all situations, reports of visual contact are always passed to the patrol's HHQ with as much detail as possible. It is important to note that visual contact is not broken unless specified in the orders issued by the commander assigning the patrol's mission. If the tactical situation becomes unclear or it was not clearly specified in the orders issued to the patrol, the commander should make the decision on whether to break visual contact.

Mounted. Like in visual contacts with a dismounted patrol, a visual contact with a mounted patrol occurs when an enemy force is discovered and has not yet detected the mounted patrol. All other actions typically remain the same, and only differ because the patrol is mounted. These immediate actions include the following:

- The Marine who first identifies the enemy announces the contact over the radio, along with a distance and clock direction, either from the direction of travel or a cardinal direction from a control measure.
- The element in visual contact immediately moves to position their vehicle where the crew and any crew-served weapons can remain in visual contact with the enemy by either remaining mounted or by dismounting.
- Hand-held or vehicle-powered optics are employed to observe the enemy or threat.
- The vehicle commander of the vehicle in contact sends a contact report over the radio.
- Depending on the formation for movement, the route, and the tactical situation, the remainder of the patrol either forms a herringbone or a hasty 360-degree formation, or occupies hull-down or hide positions utilizing terrain and concealment as best as possible.
- Vehicle gunners orient crew-served weapons along suspected avenues of approach.
- One or more vehicle crews may dismount from their vehicles to assume local security with personal weapons and optics along avenues of approach.
- The patrol leader reports the contact to HHQ while developing the situation.

Physical Contact (Meeting Engagement) Immediate Actions. Physical contact typically occurs through meeting engagements when a patrol and an enemy force uncover each other simultaneously. This includes, ambushes, IED attacks, or a combination of both. Like all contact, physical contact is reported rapidly and with as much detail as possible. Whenever physical contact occurs, the patrol leader has two choices—to break contact or to maneuver and fight.

Dismounted Meeting Engagements. A typical meeting engagement process between a dismounted patrol and an enemy force is as follows (refer to figures 4-7 through 4-9):

- The patrol and the enemy simultaneously uncover each other at close range.
- All Marines who identify the enemy should immediately engage and announce contact with a clock direction and distance to the enemy, for example, contact three o'clock, 100 meters.
- Patrol elements in contact immediately assault the enemy using fire and movement.
- The patrol destroys the enemy or forces them to withdraw.
- The patrol leader reports the contact to HHQ.
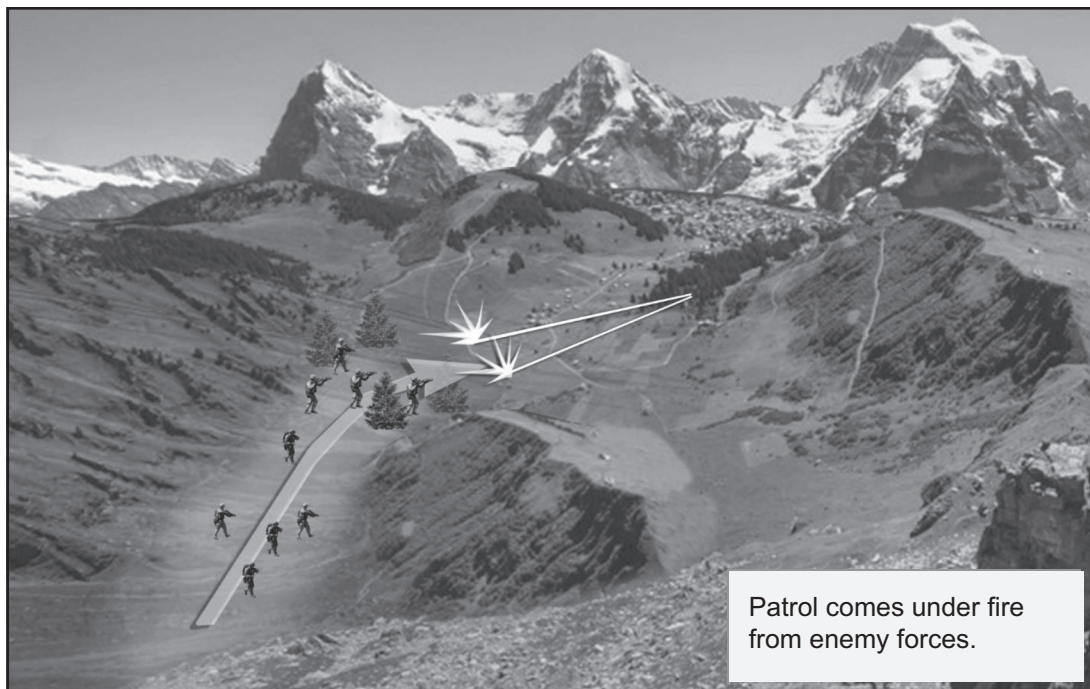
Figure 4-7. Patrol Receiving Fire from Enemy Force.
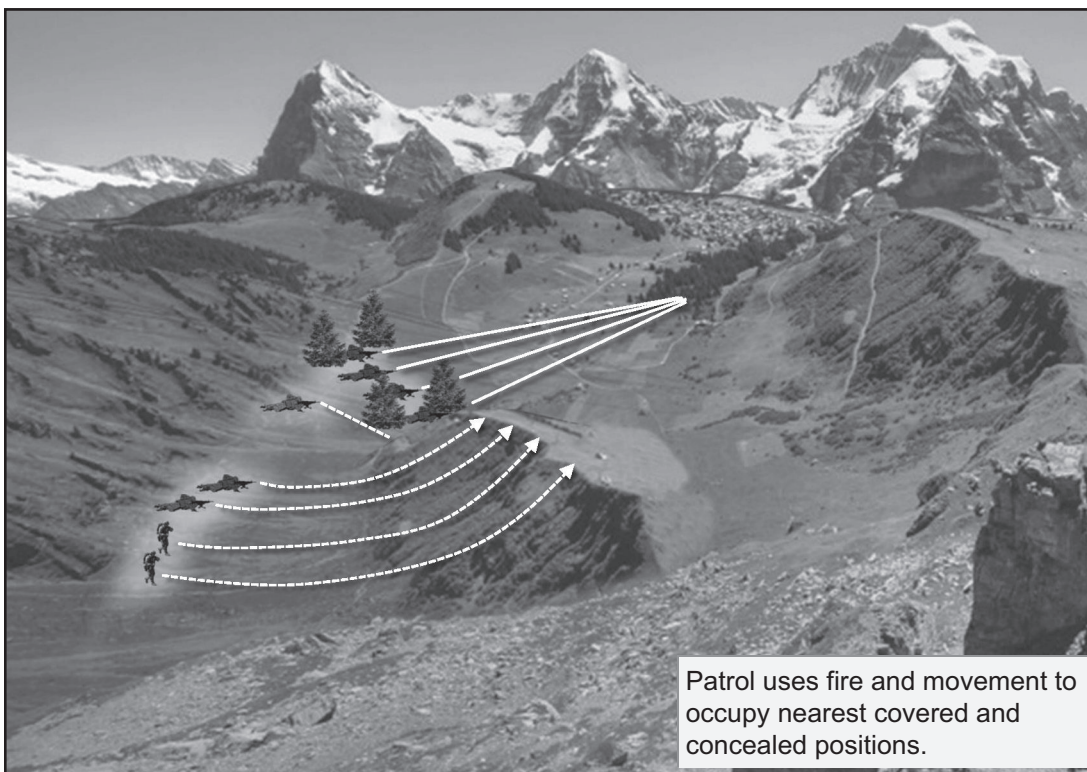
Figure 4-8. Patrol Conducting Fire and Movement on Enemy Force.

Maneuver element is in position and engages enemy with well aimed fires.
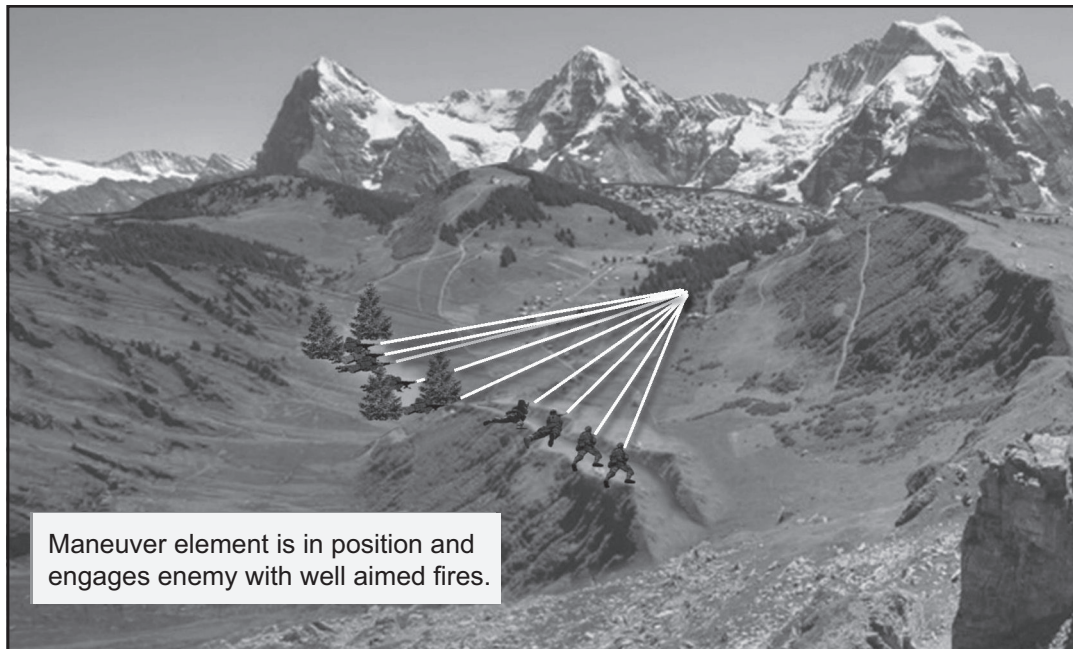
Figure 4-9. Patrol Maneuver Employment.

Mounted Meeting Engagements. Mounted meeting engagements utilize the same principles as dismounted meeting engagements. The key difference between the two is that mounted meeting engagements may present unique challenges due to the large signature of combat vehicles. Mounted patrols which gain contact in restrictive terrain may face additional challenges in finding cover, concealment, or maneuver space. Meeting engagement reaction drills must be part of planning and rehearsals, including plans for dismounting the vehicles to engage enemy forces. The general process of a meeting engagement between a mounted patrol and an enemy force is:

- The Marine who identifies the enemy first immediately alerts the patrol by announcing the contact to the crew, with the vehicle commander passing it to the patrol over the radio.
- The vehicle in contact immediately suppresses the enemy.
- The patrol leader reports the contact to HHQ while subordinate element leaders conduct reaction drills.
- Either the patrol leader directs maneuver elements to move on the enemy, or the patrol continues to move along its route.
- Vehicle gunners fix and suppress the enemy positions.
- In developing the situation, the patrol leader could dismount and engage the enemy force.

Reaction to an Ambush

Even if the enemy performs an ambush in a hasty manner, the largest danger to the patrol is that they have the tactical advantage by being alerted to the patrol's presence or anticipate its route of movement. This type of scenario is predominantly more common with mounted patrols in which movement is constrained along predictable routes within complex terrain such as urban areas, forests, jungle, or mountains. With most ambushes, the enemy also possesses the advantage of time in creating hasty or well-prepared positions that favor their tactical actions. In any situation

in which a patrol is ambushed (i.e., either foot-mobile or mounted), the patrol leader's immediate goal is to immediately establish effective fires to suppress the enemy in order to conduct one of two possible tactical actions:

- Conduct an immediate assault to fight and maneuver through the ambush.
- Break contact.

Immediate Assault. An immediate assault is an immediate action drill that can be employed offensively or defensively, with the sole purpose of gaining fire superiority. It may be used defensively to make and quickly break undesired but unavoidable contact, such as a meeting engagement or ambush, and offensively to decisively engage the enemy first (including hasty ambush). When used in a meeting engagement, members nearest to the enemy open fire and shout contact, followed by the direction of the incoming attack—*front*, *left*, *rear* or *right*. The patrol moves swiftly into a line formation and assaults, or the patrol leader decides to break contact.

Break Contact. A patrol may break contact by conducting rearward fire and movement. One element of the patrol returns fire while another element bounds away from the enemy. Then that element resumes fires, allowing the other elements to bound backward from the enemy. Each element of the patrol covers the other by fire until contact is broken or the patrol leader gives the order to cease fire. Bound commands for breaking contact are given utilizing the clock method to avoid confusion (vice giving cardinal directions). Twelve o'clock is oriented toward the direction of the enemy contact or the movement of the patrol. The patrol leader shouts a direction and a distance for the patrol to move. For example, break contact—seven o'clock—two hundred means the patrol should move in the direction of seven o'clock for 200 meters. Patrol members keep their same relative positions as they move so the original formation is not disrupted. Subordinate leaders must be alert to ensure that the members of their elements and teams receive the correct order and move as directed. Figures 4-10 through 4-12 illustrate a dismounted patrol breaking contact with an enemy force.

Patrol engages enemy and must break contact from open area.
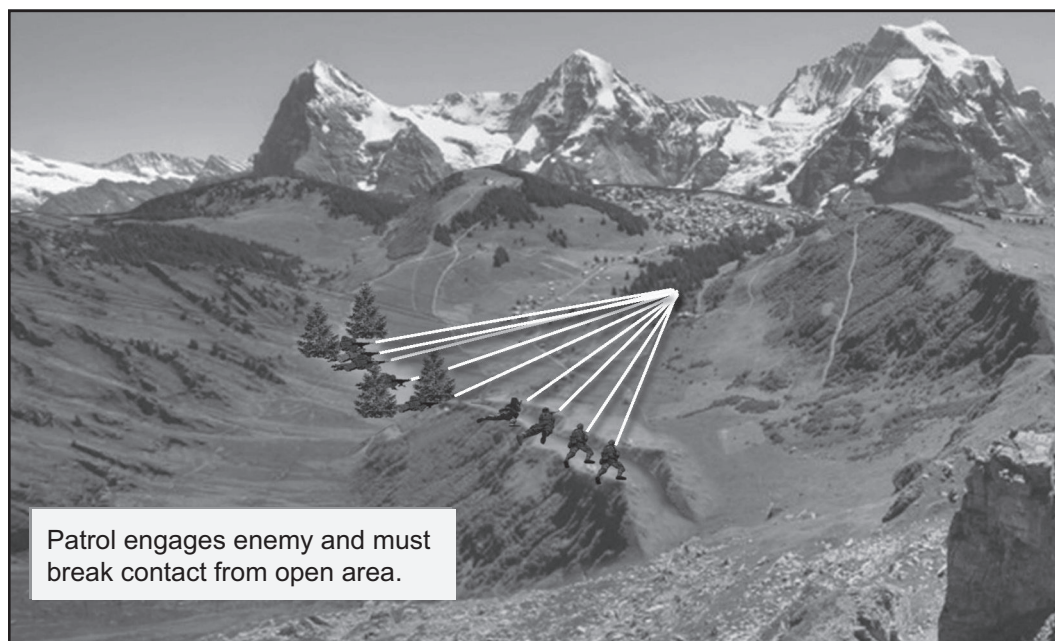
Figure 4-10. Patrol Breaking Contact.

Element in contact pops smoke to conceal movement and bounds back to next position away from enemy contact.
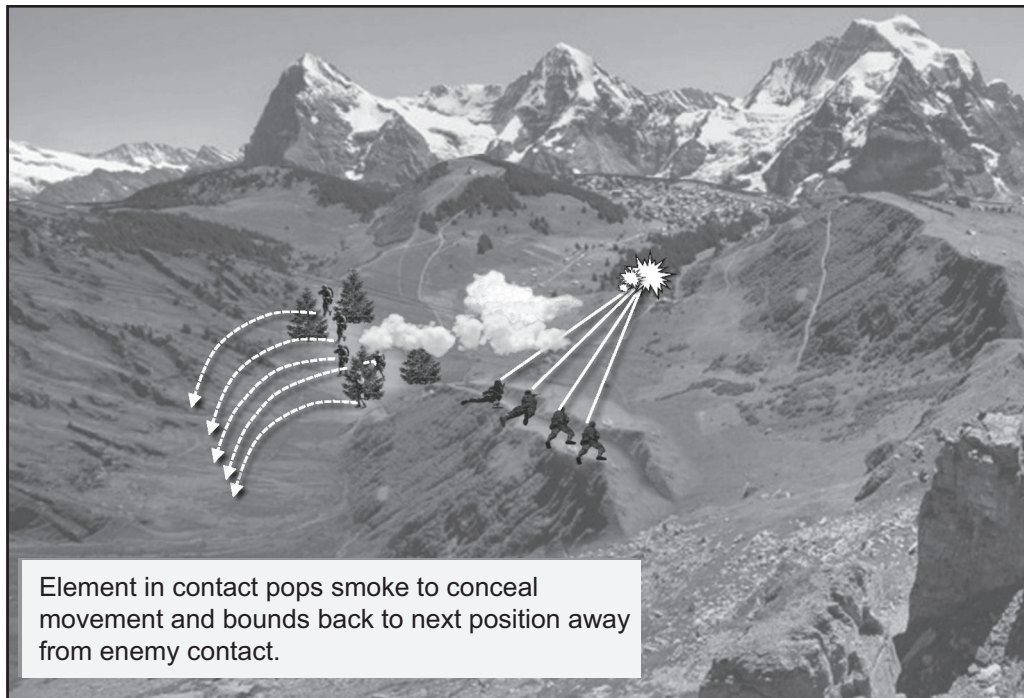
Figure 4-11. Patrol Executing Break Contact.

Patrol occupies next position and suppresses enemy while other elements of the patrol bound back.
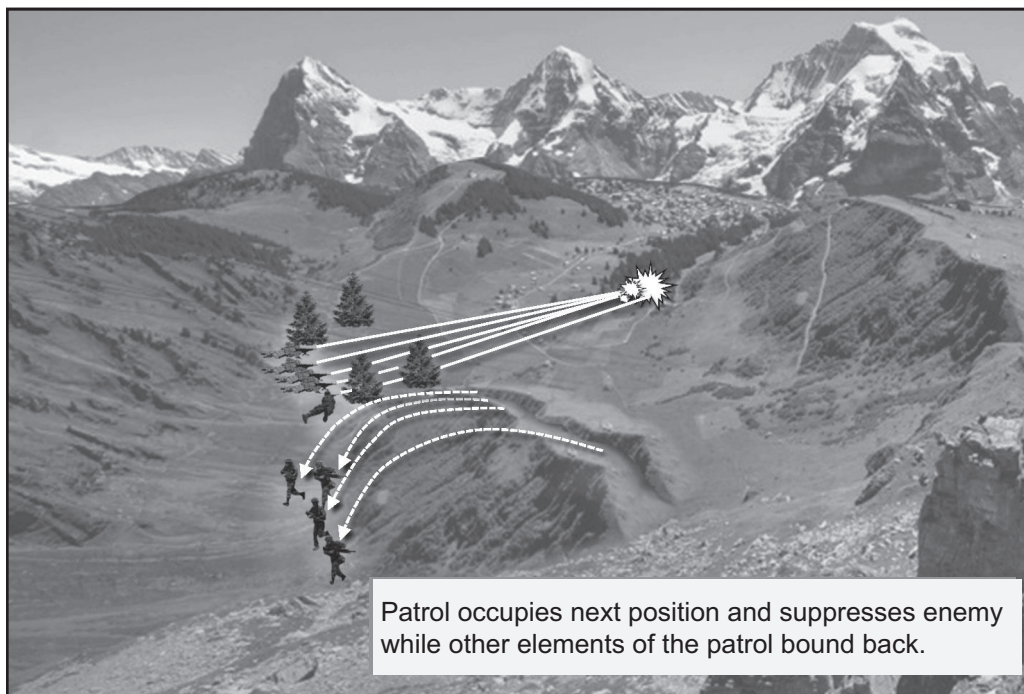
Figure 4-12. Patrol Completing Breaking Contact.

Near Ambush. Near ambushes are extremely lethal. They usually contain large volumes of fire and generally occur at a distance where hand grenades can be employed (i.e., typically less than 50 meters). Swift action by all patrol members is critical and should be part of SOPs and rehearsals. If no cover is available when the ambush is commenced, Marines should attempt to conduct an immediate assault through the kill zone without being signaled or ordered to do so. If cover is available, Marines should occupy the nearest covered position, return fire, and throw smoke grenades without order or signal.

Dismounted Reactions to a Near Ambush (Immediate Assault). The general process for a dismounted patrol reacting to a near ambush by an enemy force is as follows (refer to figures 4-13 through 4-15):

- Marines in the kill zone immediately return fire on known or suspected enemy positions.
- Marines assault through the kill zone using fire and movement.
- Marines not in the kill zone identify the enemy's location and place well-aimed suppressive fire on the enemy's position to relieve pressure on Marines in the kill zone.
- Marines shift their fires as the assault clears the objective.
- The patrol assaults through the kill zone and destroys the enemy.
- The patrol leader reports the contact to HHQ.

Patrol is ambushed from nearby enemy.
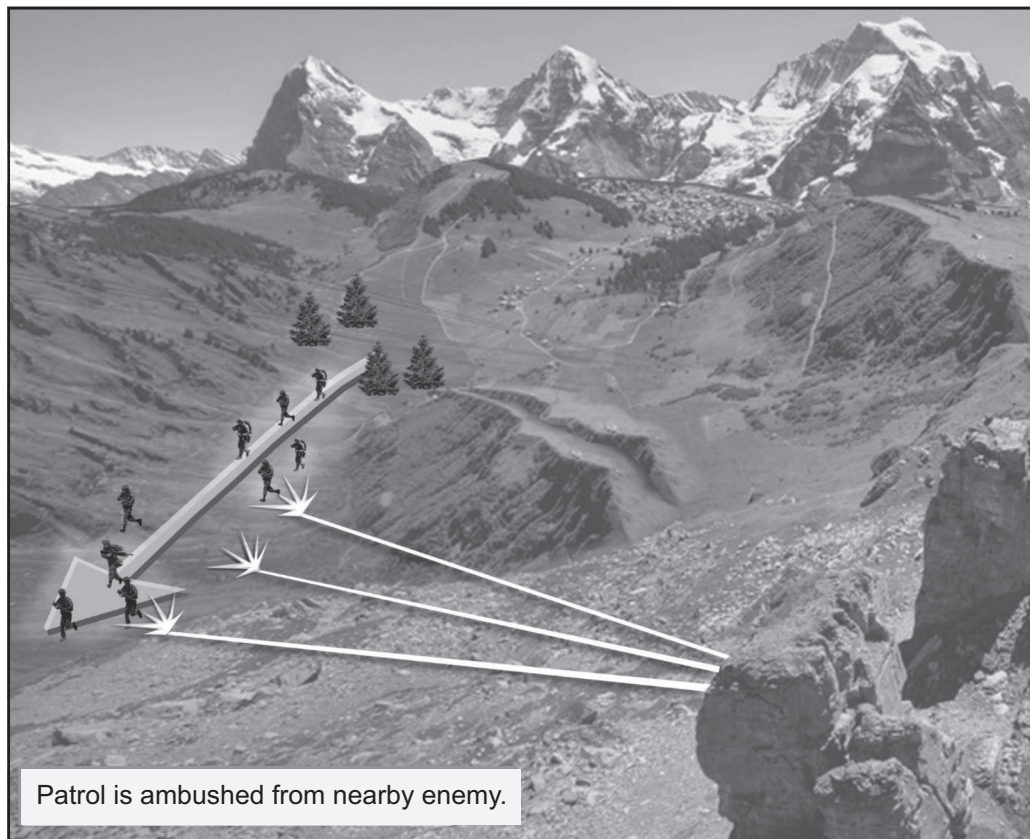
Figure 4-13. Dismounted Patrol Reacts to a Near Ambush.

Marines in the kill zone immediately return fire.
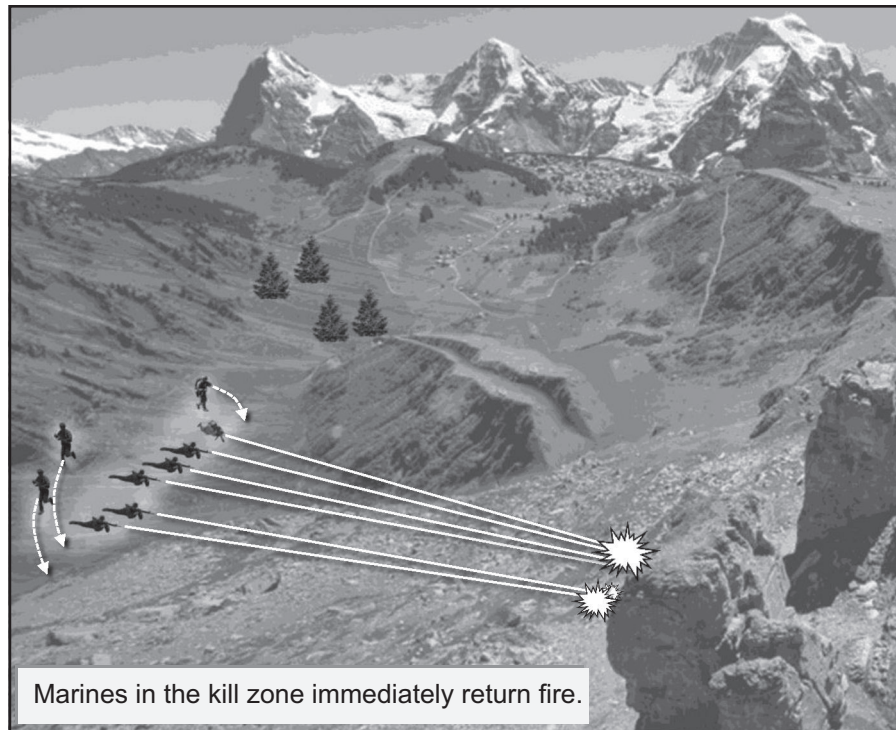
**Figure 4-14. Dismounted Patrol Forming for
Immediate Assault Against a Near Ambush.**

Marines in support position shift fires as Marines
in kill zone assault through enemy positions.
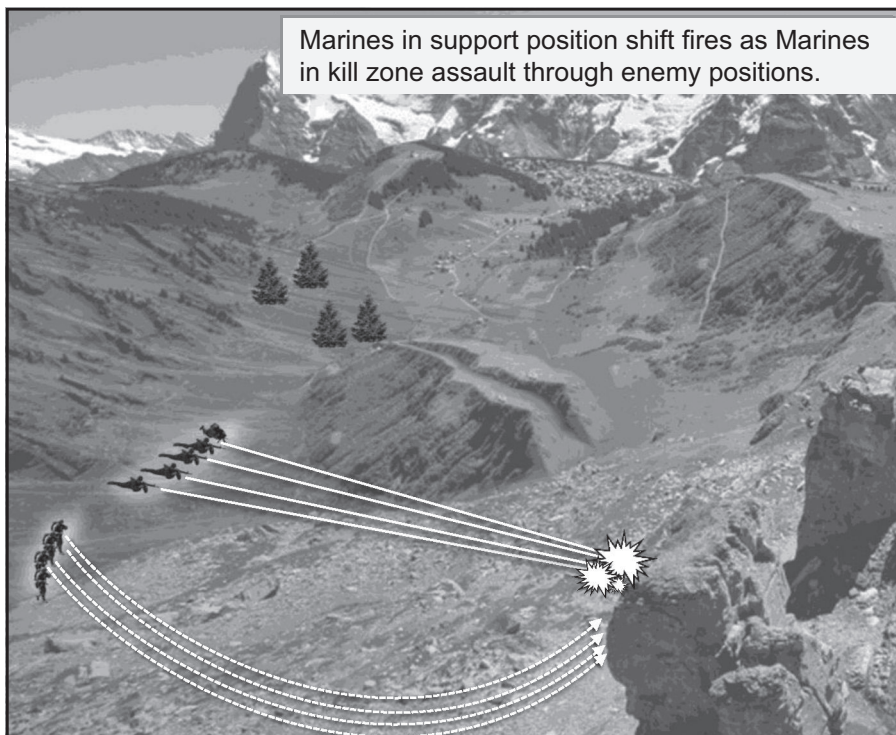
**Figure 4-15. Dismounted Patrol Conducting
Immediate Assault Against a Near Ambush.**

Mounted Reaction to a Near Ambush (Immediate Assault). The general process for a mounted patrol reacting to a near ambush by an enemy force is as follows (refer to figures 4-16 through 4-18):

• Vehicle gunners immediately return fire on known or suspected enemy positions while elements in the kill zone attempt to quickly move out of it.

• Marines on disabled vehicles in the kill zone dismount, occupy covered positions, and engage the enemy with accurate fire.

• Vehicle gunners and Marines outside the kill zone suppress the enemy.

• The patrol assaults through the kill zone and destroys the enemy.

• The patrol leader reports the contact to HHQ.

The lead elements of the patrol are ambushed by enemy.
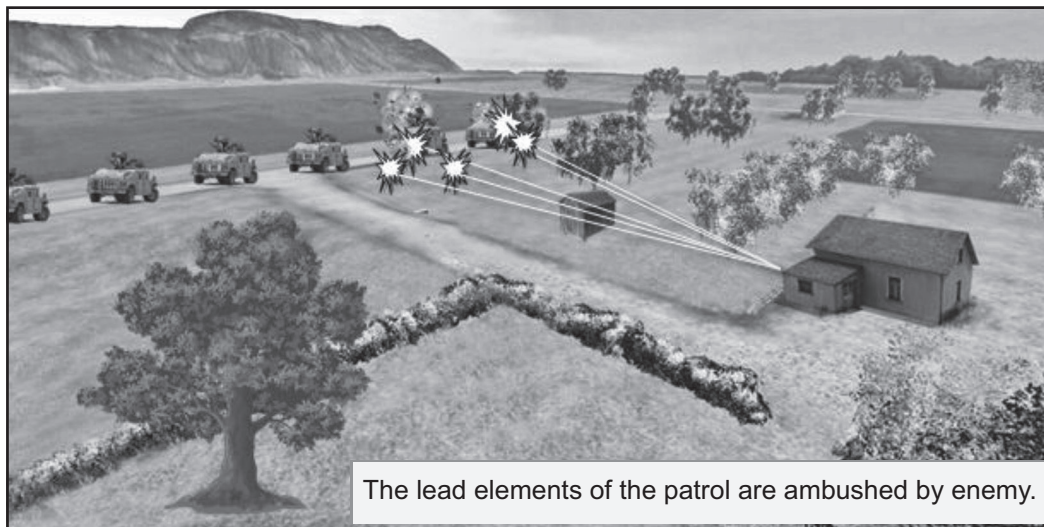
Figure 4-16. Patrol is Engaged in a Near Ambush.

The lead elements attempt to move out of the kill zone. Crews with disabled vehicles in the kill zone dismount, seek cover, and return fire. Trail elements engage enemy.
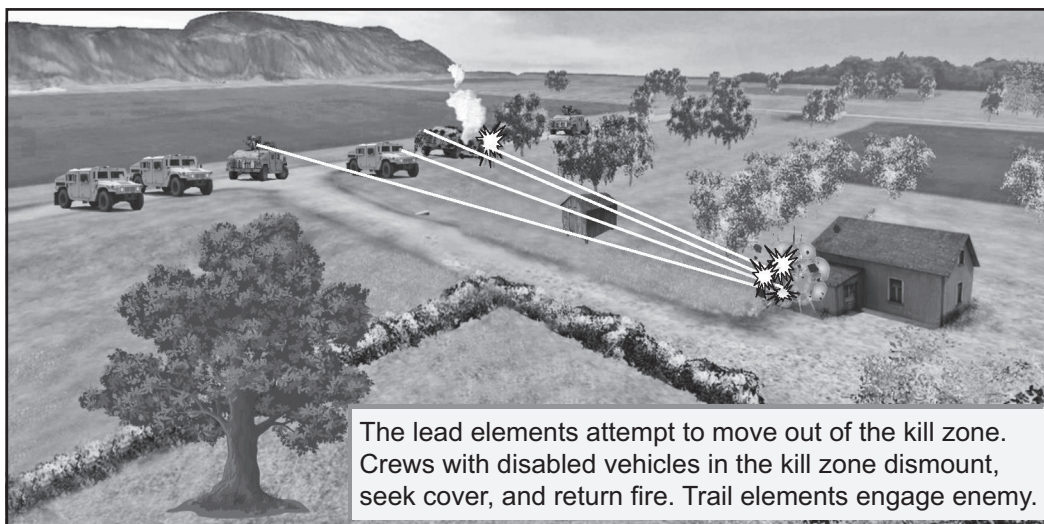
Figure 4-17. Patrol Returns Fire and Establishes a Base of Fire.

Patrol leader directs an element to become the base of fire and directs trail elements to maneuver on enemy a combination of mounted and dismounted maneuver. Base of fire shifts to allow Marines to close on enemy.
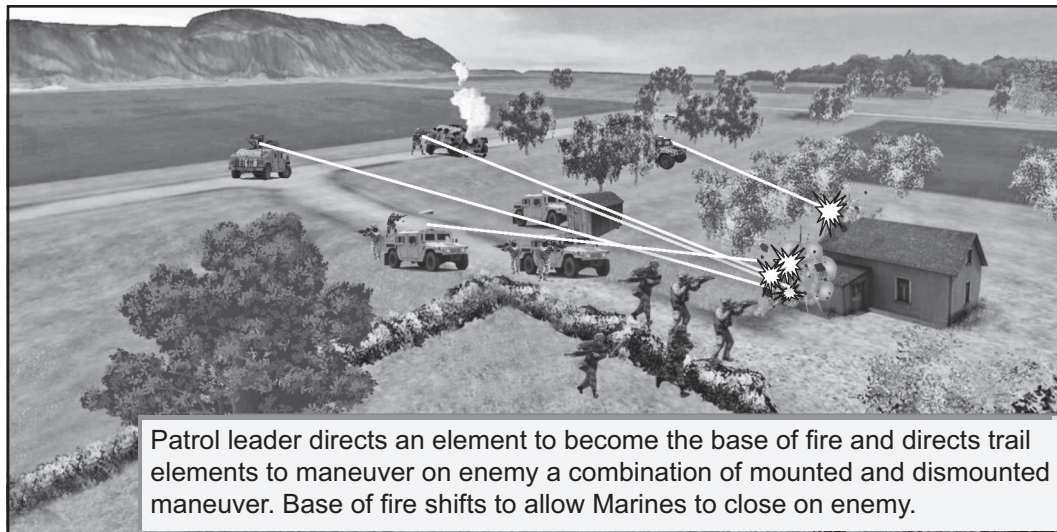
Figure 4-18. Patrol Conducts Immediate Attack with a Base of Fire.

Pursuit. When the enemy is decisively engaged, escaping enemy personnel may be pursued until orders to break contact are given by the patrol leader.

Far Ambush. In a far ambush, the kill zone is under heavy, highly concentrated fires, but these fires are typically delivered from a farther distance (i.e., typically greater than 50 meters). The increased distance provides members in the kill zone additional maneuver space and opportunities to seek cover with a somewhat lower risk of becoming casualties. If attacked by a far ambush, members in the kill zone immediately return fire without order or signal, take the best available positions, and continue firing until directed otherwise. The patrol leader directs Marines who are not in the kill zone to rapidly maneuver against the ambush force to relieve pressure on the Marines in the kill zone. The assault is continued against the enemy or until the order to break contact is given. In each situation, the success of the counter-ambush employed depends on the members being well trained in quickly recognizing the distance from which an ambush is initiated, as well as having rehearsed them in detail.

Dismounted Reaction to a Far Ambush. Refer to figures 4-19 through 4-21. Marines receiving fire immediately return fire, seek cover, establish a support by fire position, and suppress the enemy positions. Marines not under fire move along a covered and concealed route to the enemy's flank to assault their positions. The patrol leader or forward observer calls for and adjusts indirect fires and CAS, if available. On order, the patrol lifts or shifts fires to isolate the enemy position or to attack with indirect fires as the enemy retreats or displaces. Marines in the kill zone shift suppressive fires as the assaulting Marines fight through and destroy the enemy. The patrol leader ensures the contact is reported to HHQ as rapidly and accurately as possible.

Mounted Reaction to a Far Ambush. A mounted patrol's reaction to a far ambush are performed in a similar manner as to a near ambush. It is critical that all vehicles that are not disabled in the kill zone immediately return fire and attempt to seek cover. The distance and greater range of a far ambush may provide vehicles a greater chance to rapidly move through or out of the kill zone at a higher rate of speed. Speed and mobility thereby become an additional measure of security.

Marines caught in kill zone immediately return fire. Marines not receiving fire move to covered and concealed position(s) to maneuver on the enemy.
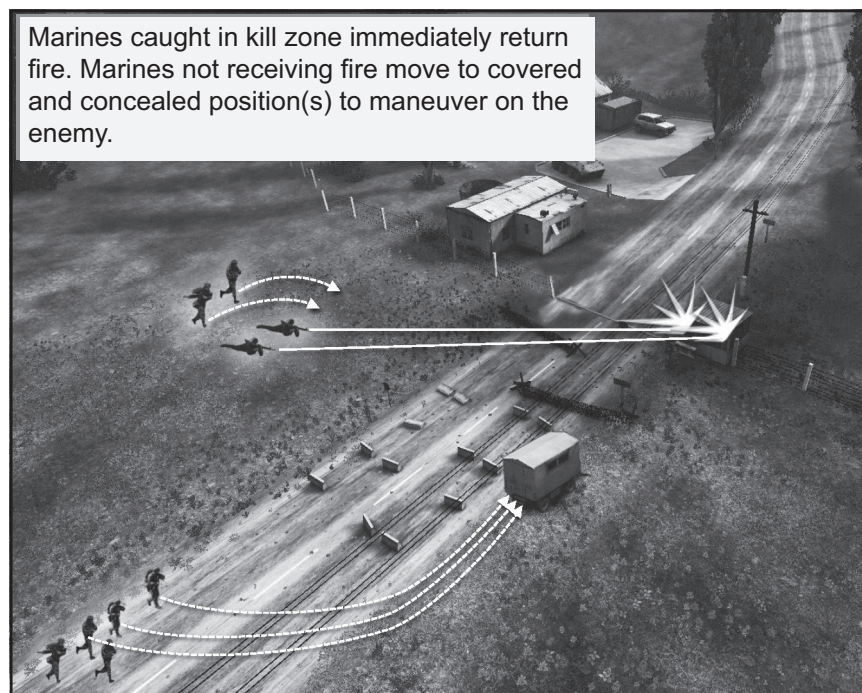
Figure 4-19. Patrol Conducting Immediate Attack Against a Far Ambush.

Patrol is ambushed at far range.
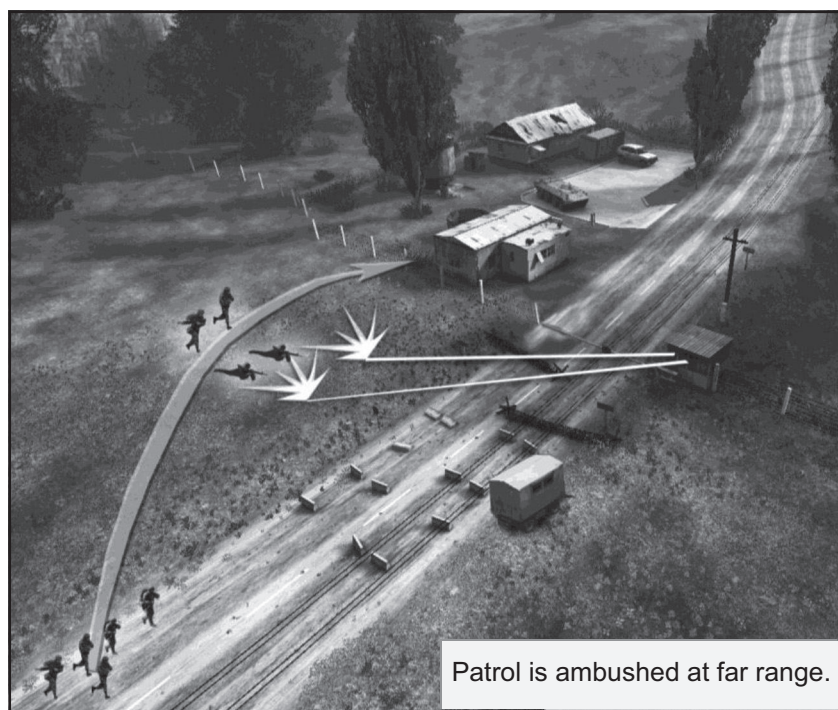
Figure 4-20. Patrol is Ambushed at Far Range.

Marines caught in kill zone shift fires as assaulting Marines flank enemy.

Figure 4-21. Patrol Conducting Attack Against a Flank of a Far Ambush.

Once the enemy has commenced a far ambush, the element in contact passes the location over the patrol's net using the clock method or a cardinal direction from a control measure, such as a checkpoint. If the roadway is clear, all vehicles proceed through the kill zone as rapidly as possible. The lead vehicle deploys vehicle smoke to obscure the enemy's view of the kill zone. Vehicle commanders in disabled vehicles order Marines to dismount (according to METT-T considerations) and establish local security. The remainder of the patrol follows the lead vehicle out of the kill zone while continuing to suppress the enemy, and the patrol leader reports the contact to HHQ.

Reaction to an Improvised Explosive Device Discovery

Improvised explosive devices are lethal threats to both dismounted and mounted patrols alike. Like any obstacle, it should be assumed that all IEDs are covered by observation and fires. It is preferable for Marines to locate possible IEDs visually before they are detonated. This skill is a critical task for all Marines, particularly for vehicle drivers if mounted. The discovery of an IED must be treated as visual contact and reported. If the patrol does not possess enough Marines to secure the area, the patrol leader should request reinforcement from HHQ. The patrol must maintain security on the area and should not attempt to remove or handle the devices unless task-organized with the necessary capabilities. See figure 4-22 for those actions taken by a mounted or dismounted patrol upon discovery of a suspected IED.

The patrol reacts to a suspected or known undetonated IED using the "5 Cs," which are to confirm, clear, cordon, check, and control

Confirm. Suspect explosive ordnance presence must be confirmed from a safe distance when possible, and with the maximum use of hard cover and spotting equipment, such as binoculars or other optics. Safety should never be compromised for positive identification of the item.
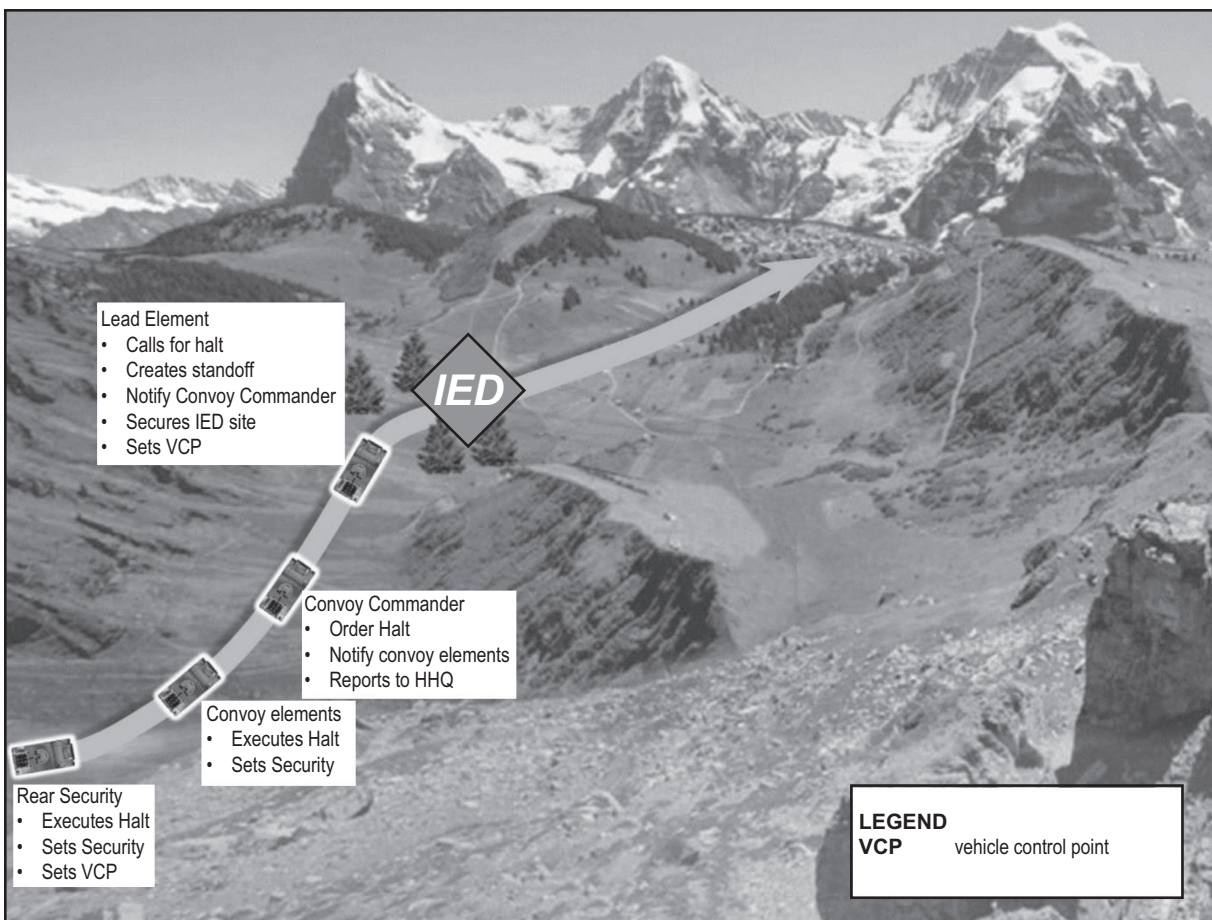
Figure 4-22. Mounted Reaction to a Suspected IED Discovery.

Clear. All personnel should be cleared from the area to a tactically safe distance. Marines should conduct 5 and 25-meter checks of the area for secondary hazards, as a secondary detonation may be imminent. The minimum safe distance for exposed personnel is 300 meters from the explosive ordnance, depending on METT-T.

Cordon. The danger area should be cordoned to all vehicles and foot traffic and an incident control point or vehicle control point established to prevent the entry of unauthorized personnel or vehicle traffic that may further threaten the patrol. The size of the cordon is determined by METT-T.

Check. The immediate area is checked for secondary devices using the 5 and 25-meter checks. The search area can be expanded as time and the hazard permit.

Control. The area inside the cordon is controlled to ensure that only authorized personnel (e.g., EOD, medical, and firefighting) have access. Security should be maintained at the established safe distance while maximizing available cover to afford protection from the hazard.

Reaction to an Improvised Explosive Device Attack

The detonation of an enemy IED may be a simple stand-alone attack, part of an attack with a series of devices intended to cause successive casualties, or part of a complex attack or ambush involving some combination of small arms, crew-served weapons, indirect fire, and air attack. The

exact reactions depend on the patrol leader's (or other small unit leaders') understanding of the tactical situation, whether the patrol is still in enemy contact following the detonation, and whether there are any casualties. The patrol leader must immediately contact HHQ and submit a contact report with as much detailed information as possible. It is more important that the report be made as quickly as possible to alert the patrol's unit headquarters than it is for the information to be complete. This allows the headquarters to develop contingency plans to support the patrol, such as air support, fire support, CASEVAC, EOD, and reinforcement or employment of a reaction force.

Once clear of the kill zone, patrol members not involved in contacting HHQ, tending to casualties, or recovering vehicles should immediately scan outward to keep from losing focus on their environment and remain alert to threats from different ranges. They should remember that their actions may be observed by hidden enemy observers or unmanned aircraft to direct further enemy actions. Furthermore, they must search their immediate vicinity for indicators of secondary devices, which may be concealed within parked or disabled vehicles, roadside debris, trash piles, or emplaced within walls or curbs. Patrol members should systematically scan from the ground level and work upward, to include observing for enemy unmanned aircraft. For actions following an IED attack, see figure 4-23.
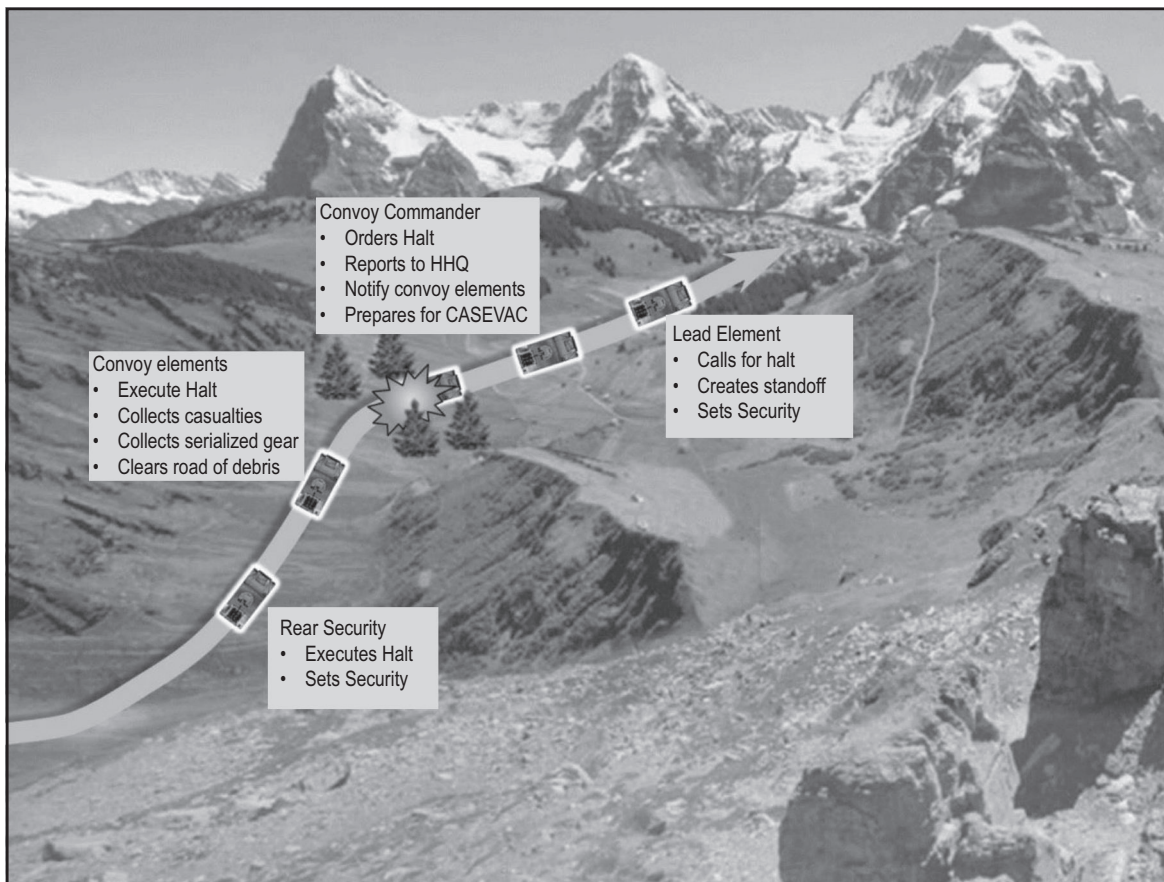
Figure 4-23. Reaction to an IED Attack.

For more information on counter-IED TTP, refer to MCTP 10-10C, *MAGTF Counter- Improvised Explosive Device Operations*; MCTP 10-10D, *MAGTF Explosive Ordnance Disposal*; MCRP 10-10D.1, *Multi-Service Tactics, Techniques and Procedures for Explosive Ordnance*; and MCRP 10-10.1, *Countering Explosive Hazards*.

Reaction to an Air Attack

With their ability to observe, report, or attack the patrol, both manned and unmanned aircraft present a threat to patrolling Marines. Actions to mitigate the dangers of aircraft are becoming more critical with the proliferation of UASs (discussed in following section). When an unidentified aircraft is heard or sighted flying over a patrol, the appropriate immediate action drill is to freeze. This signal or command is given by the first Marine hearing or seeing a potential threat aircraft. Every patrol member responds by halting in place until the patrol leader gives a subsequent command. Members of the patrol must avoid looking upward at the aircraft, as sunlight can reflect off their faces or eye protection—even when camouflaged.

When an aircraft detects a patrol and turns to make a low-level overflight or attack, the immediate action drill for air attack is used. The first member sighting an attacking aircraft shouts aircraft, followed by the direction of the incoming attack—front, left, rear, or right. If in the open, the patrol moves quickly into a line formation and spreads out at right angles to the aircraft's direction of attack. As each member comes on line, they hit the ground, using available cover, then position their body perpendicular to the aircraft's direction of travel to present the smallest target silhouette possible (refer to figure 4-24). Following an attack, the patrol leader should give a command for the patrol to rapidly move into a more covered and concealed position before the attacking aircraft (or others) makes another attack run. When suitable cover and concealment is available, the patrol leader orders the patrol to seek it using the alert procedure. Attacking aircraft are only fired upon when given the command to do so by the patrol leader.

Figure 4-24. Patrol Reaction to Attacking Aircraft.

Reaction to an Enemy Unmanned Aircraft

Advancements in UAS technologies allow a threat to collect information, conduct attacks, or trigger other tactical events. The relatively inexpensive cost and commercial availability of these systems, especially small tactical UASs, provide enemies or adversaries a highly effective, easily replaced, and affordable means of conducting reconnaissance, surveillance, and target acquisition. They may be fixed-wing or rotary-wing and powered by either battery or liquid fuel.

Integrated air and missile defense capabilities can effectively identify and counter larger classes of unmanned aircraft that fly at higher elevations and are common to military use. However, they have difficulty identifying, tracking, or engaging small unmanned aircraft due to their smaller signature and low flight characteristics. The mass employment of UASs by enemy or adversary forces can produce many negative effects on patrols and other friendly forces. The ability of these smaller types of UASs to operate at low altitudes decreases the likelihood of friendly forces detecting them in a timely manner. Small units operating in and around combat areas should assume they are being observed by the threat through all observation methods and techniques available, to include unmanned aircraft.

Patrolling units must react quickly and appropriately (i.e., respond and report) when recognizing signs of possible enemy unmanned aircraft observation or attack. When a patrol encounters an enemy unmanned aircraft, the decision of how to react to it depends primarily upon METT-T considerations. Whenever possible, patrols must seek to avoid detection and observation from small, slow, low-flying unmanned aircraft. If an unmanned aircraft is observed over or near the patrol's position, it is highly likely that their position has been compromised; this could result in the patrol being immediately targeted by enemy fires. Additionally, patrols should consider contact with small UASs, which often have limited endurance, as an indicator of the relative proximity of enemy elements. Even if the patrol leader believes the unmanned aircraft did not overfly or identify the patrol, the visual contact must be reported to the patrol's HHQ. The UAS contact report (see table 4-2) should include as much of the following information as possible:

- The unit reporting the contact.
- The time the enemy unmanned aircraft was sighted and how long it was observed for.
- The location where the enemy unmanned aircraft was observed.
- A description of the unmanned aircraft in as much detail as possible, to include size, color, type (i.e., rotary or fixed-wing), observed flight characteristics (e.g., general speed), and activities (e.g., loitering or hovering over or near the patrol, flying straight, or randomly searching).
- The actions taken by the patrol.
- The direction that the unmanned aircraft entered the patrol's observation from when it was first observed (if known) and the direction in which it appeared to exit from contact.
- The estimated altitude (in feet) when observed.

Table 4-2. Example UAS Contact Report.

Info	Amplifying information
Unit	A2R
Time	1034(L) observed for approximately 15 minutes
Location	NT 11S 01151976 (GPS)
Description	2ft x 2ft sized, black, rotary-wing (4 rotors). First contact was a rapid overflight, then UAS appeared to circle back and loiter in circular patterns, appearing to search for the patrol using the cover of tree tops to observe from different angles.
Actions taken	Upon hearing and then seeing the UAS overfly the patrol, the patrol immediately scattered into nearby tree lines in multiple directions and continued to observe the UAS while concealed.
Direction	Entered initially on an overflight from the north-northeast. Appeared to circle back to observe the patrol. Exited south-southwest
Altitude	Flying at approximately 70-100 feet above ground level (AGL).

Depending on the type of patrol, its mission, and its method of movement, the patrol leader may choose to do one of the following in reaction to an UAS threat:

- Freeze in place while observing the unmanned aircraft.
- Order the patrol to scatter into available concealment (see figure 4-25).
- Redirect the patrol's route.
- Attempt to engage and destroy the unmanned aircraft using organic small arms fires.
- Terminate the patrol's mission.

When a manned or unmanned aircraft threat poses a significant force protection concern for a patrol, the patrol leader may choose to fire upon the aircraft if the geometry of fires and METT-T permit. However, this tactic is not advisable against small enemy UASs for several reasons.
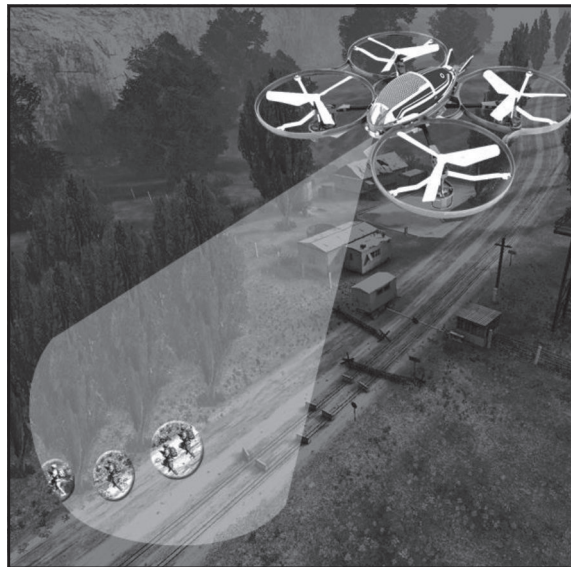
Figure 4-25. Patrol Scatter Reaction to Unmanned Aircraft.

First, a small UAS's altitude, range, and minimal profile will challenge the patrol's ability to effectively engage it by fire. Second, firing upon an UAS may aid the enemy by confirming the patrol's location and possibly providing information on its size and equipment. Last, since the compromise of the patrol's location may result in it being targeted by enemy fires, the limited time available is better spent moving to avoid enemy fires instead of remaining in place attempting to destroy or disable the unmanned aircraft.

If forced to defend the patrol against manned or unmanned aircraft, the patrol leader must seek to mass all direct fire weapons, with an emphasis on positioning machine gun teams due to their higher rates and volumes of fire. A machine gun may be elevated upward in a stable manner that allows the gunner to acquire and engage the aircraft. A hasty and efficient technique to elevate the machine gun is for the assistant machine gunner to hold the extended bipod legs overhead while crouching or standing, providing the gunner a steadier platform to maintain an upward angle at the attacking aircraft as it approaches the patrol (see figure 4-26). Ideally, this is accomplished from behind suitable cover. However, when no suitable cover is available, the best available concealment should be sought.

As the use of small, commercially available UASs proliferate and active counter-UAS technologies mature, patrols must make maximum use of both passive and active air defense measures to protect against observation and fires. Passive defense measures can degrade (but not eliminate) the effectiveness of an enemy UAS. The following considerations can assist patrol leaders in developing passive defense measures and tactics that degrade the potential effectiveness of enemy or adversary UAS employment:

- SOPs.
- Route planning.
- Camouflage, cover, and concealment.
- Tactical military deception.

Figure 4-26. Attack Against Low-Flying Manned or Unmanned Aircraft.

Standing Operating Procedures. All patrols must have developed SOPs for contending with UAS contact. These SOPs must be rehearsed before a patrol in the same manner as reacting to any other form of contact. The SOPs should contain reaction drills for freezing in place, scattering into available concealment, and movement techniques that seek to mask or deceive the UAS's terminal operator. If the SOP advocates employing direct fire against an enemy UAS, it should consider the likelihood of potentially increasing the patrol's vulnerability to enemy fires. An additional consideration is to assign and employ air sentries or observers when crossing open areas where the patrol can be observed more easily, to include hand-and-arm signals. Like any enemy contact, any member of the patrol must be able to initiate the alert signal for a UAS contact.

Route Planning. A patrol leader should identify areas where the patrol may be vulnerable to observation from unmanned aircraft threats and plan routes that maximize concealment. Route planning could include a planned use of military deception (described below) to purposely deceive UASs when they are anticipated or likely to be employed against patrols. Patrols planned during darkness or in periods of high wind conditions can also add an additional measure of protection from threat UAS observation.

Camouflage, Cover, and Concealment. Patrols must seek to implement passive air defense measures, including camouflage, cover, and concealment to protect Marines and deny the enemy the ability to collect information through UAS employment. Using camouflage provides an additional measure of security when it matches the prevailing colors of the terrain and foliage textures. When moving through areas that may be under observation, Marines may use formations that attract less attention or appear less conspicuous and make maximum use of existing shadows to conceal individual patrol members. Thought should be given to how Marines may be observed from an aerial perspective, taking care to reduce the potential for items to shine, flash, flutter, cast shadows, or reflect upward, and ensuring shapes are broken up and not easily contrasted from the air against the ground.

Tactical Military Deception. Military deception may be employed in a variety of situations. First, it may be a reactionary event where the patrol leader intends to confuse the UAS temporarily to allow the patrol to continue its mission. Alternatively, it may be a pre-planned, purposeful act to intentionally deceive a UAS terminal operator in order to present false information into the threat's decision-making process. Military deception is greatly enhanced by intelligence reporting of how the threat flies and conducts UAS operations. This is the reason why accurate and effective reporting of UAS contacts is critical. When the threat's use of UASs becomes predictable, creative deception could be employed to lure an unmanned aircraft into an aerial ambush or kill zone. This could be done by painting a picture of a lucrative target along the unmanned aircraft's typical flight patterns, with an ambush force in favorable terrain along the approach path ready to engage and destroy it.

MOVEMENT FROM THE OBJECTIVE AREA

After performing actions in the objective area or successfully breaking contact with a threat force, the patrol reassembles at the designated ORP or other rally point. The patrol then begins its movement back to friendly lines or areas via a different route than the one taken to the objective area. Movement during this phase is generally at a faster pace; therefore, the patrol leader selects movement formations that favor increased speed while maintaining adequate security.

It should be noted that this phase of the patrol is perhaps the most difficult and dangerous part for various reasons—including potential for enemy contact and mental and physical considerations. Mentally, Marines may be experiencing high adrenaline spikes after performing their mission, as well as feelings of confidence, invincibility, or conversely, anger from the fight. Physically, Marines could be extremely fatigued, experiencing adrenaline crash. They may be wounded; low on water, food, and/or ammunition; or in a rush to return to friendly lines. These factors have the potential to impair Marines' decision-making and increase the potential for negative effects.

Despite all environmental influences affecting the mental and physical aspects of the mission, Marines must remain focused and alert. Small unit leaders must be continually cognizant of the threat situation, as well as the mental acuity of their patrol members. Complacency should be identified and immediately corrected as quickly as possible. Marines should be rotated through security positions often to retain the patrol's security posture.

It is important to remember that the patrol's mission may have alerted the enemy to their presence, and that the patrol could be under pursuit. In this case, the patrol leader must move the patrol as rapidly as possible to increase their distance from the objective area or last contact. The speed of movement must be balanced in a manner that does not call attention to or compromise patrol security. If the patrol leader believes the patrol is being tracked, it may be advisable to employ tactics that move the patrol off its route temporarily to stop, look, and listen for threat activity. The patrol leader may decide to occasionally circle back to overwatch areas the patrol has moved over and—when necessary—lay ambushes to destroy and/or deter any threat tracking activities (refer to chapter 9 for counter-tracking techniques).

Upon occupying the last rally point outside friendly lines or areas, the patrol leader must ensure the patrol remains in a high state of alert. This is necessary because an enemy may know the locations of friendly forces and attempt to lay ambushes or antipersonnel obstacles outside friendly lines. A worst-case scenario could occur in which the patrol is engaged by an enemy force just outside friendly lines. In all cases, the patrol leader and subordinate element leaders must ensure Marines remain alert to threats until the last patrol member is counted into friendly lines.

Having previously coordinated and confirmed the procedures for the reentry of friendly lines before the patrol, the patrol leader now executes the reentry plan. When dismounted patrols near the return to friendly lines, the patrol leader leaves the patrol in a secure and covered position and moves forward with a radio operator and at least one Marine for security to make contact with the friendly unit as planned. After making contact, the patrol leader moves back to rejoin the patrol and leads them to the passage point, personally counting each member of the patrol as they reenter the friendly line to ensure all Marines are accounted for and that no enemy has infiltrated the

patrol formation. Mounted patrols communicate their arrival or estimated arrival time to the receiving unit to avoid delays during reentry. If necessary, a mounted patrol may conduct a short halt in a secure area outside friendly lines if it has to wait for trail vehicles to catch up. Mounted patrols enter friendly areas as per their orders, with the trail vehicle reporting entry into the friendly area to the patrol leader so they know the entire patrol has arrived. Upon completing their reentry into friendly lines, all patrols proceed to the designated area to ensure accountability of all equipment, conduct patrol debriefs with their unit representatives, submit any required reports, and begin post-operation maintenance of weapons, optics, vehicles, communications systems, and other equipment.

CHAPTER 5.
ESTABLISHING AND OPERATING A PATROL BASE

PURPOSE OF THE PATROL BASE

Patrol bases for dismounted patrols are temporary and secure positions that may be established for planning, issuing orders, rehearsals, inspections, rest, or as bases of operations for conducting combat or reconnaissance patrols. Patrol bases may be established when a patrol must halt for an extended period and should not be occupied for more than a 24-hour period, except in emergency or in extreme situations. Patrol bases are never occupied twice and are typically established to—

- Avoid detection by eliminating movement that could alert the threat to the patrol's presence or otherwise jeopardize the mission.
- Hide the patrol in order to conduct reconnaissance or combat patrols.
- Conduct additional planning and issue orders.
- Contend with an unexpected tactical situation and conduct further planning.
- Rest, eat, or perform maintenance on vehicles, weapons, and equipment.
- Reorganize after infiltrating into an enemy area.
- Establish a base from which to execute several consecutive or concurrent operations.
- Wait to establish a linkup with other units.

PLANNING CONSIDERATIONS

All leaders involved in planning, establishing, and employing a patrol base must carefully balance mission requirements and security measures, both active and passive. A patrol base must be located so it allows the patrol to accomplish its mission without compromising its security. Planning considerations include the following:

- Selecting and determining a location suitable to accomplish the patrol's mission.
- The employment of organic and supporting fires.
- Security and the development of a security watch system.
- The locations of observation posts, a manning plan, and a communications plan.
- Priorities of work.
- An alert plan.
- Communications requirements.

- A weapons and equipment maintenance plan.
- A plan for withdrawal from the patrol base, to include withdrawal routes and a rally point, rendezvous point, or alternate patrol base.
- Procedures to be followed for camouflage, noise, and light discipline.
- The conduct of required activities with minimum movement and noise.
- Resupply plans.

Selection

Typically, the patrol leader initially selects the tentative patrol base location by conducting a map reconnaissance or utilizing a combination of several methods. Additional methods to aid in selection may include:

- Performing a leader's reconnaissance.
- Studying aerial photographs.
- Conducting an aerial reconnaissance.
- Overflight by organic UAS.

The suitability of the intended patrol base must be confirmed by reconnoiter and secured prior to the patrol occupying it. Plans to establish a patrol base must include selecting an alternate patrol base site if the initial site is found to be unsuitable. The alternate site is also selected and reconnoitered for use in case the patrol must unexpectedly evacuate the first patrol base.

Security

Security considerations for the patrol base are critical during planning throughout its occupation. Key consideration is use of terrain, which can significantly enhance security. However, patrols must be alert to terrain features that could compromise security. For example, noise created from rushing water may conceal the patrol's movement but also mask an approaching enemy. The selection of the patrol base's location should include the following minimum considerations to enhance security as much as possible:

- Avoiding known or suspected enemy positions.
- Avoiding populated areas.
- Avoiding ridges and hilltops, except as needed for maintaining communications.
- Avoiding small valleys.
- Avoiding roads and trails.
- Selecting terrain that the threat would probably consider of little tactical value.
- Selecting terrain located away from main lines of drift.
- Selecting difficult terrain that would impede foot movement, such as an area of dense vegetation, preferably bushes and trees that are spread out close to the ground.
- Selecting terrain near a source of water.
- Selecting terrain that can be defended for a short period and offers adequate cover and concealment.

OCCUPATION OF THE PATROL BASE AND PRIORITIES OF WORK

A patrol base is typically reconnoitered and occupied utilizing the same technique as for occupying an ORP, with the exception that the patrol typically plans to enter at a 90-degree turn. The patrol then moves as silently and rapidly as possible into the patrol base.

Occupation

Establishing a patrol base is largely based upon the factors of METT-T and unit SOP. The general methods of occupying a patrol base include:

- The patrol halts at the last suitable position, approximately 200 meters from the tentative patrol base location.
- The patrol leader directs the point to leave the direction of march to enter the patrol base at a 90-degree angle, leaving two Marines to guard the entry.
- Close-in security for the patrol is established, and the patrol leader has designated subordinate leaders assemble to conduct a reconnaissance.
- The patrol leader moves to the tentative patrol base location and designates the point of entry into the patrol base location as 6 o'clock, then moves to and designates the center of the base as patrol headquarters.
- Subordinate leaders reconnoiter areas assigned by the clock system for suitability and return to the patrol leader upon completion.
- The patrol leader sends a detachment of Marines to bring the patrol forward.
- The patrol leaves the direction of march at a right angle and enters the base single file, moving to the center of the base. Designated Marines remove signs of the patrol's movement by attempting to cover any tracks from the turn to the patrol base.
- Each leader peels off their unit and leads it to the left flank of their assigned sector.
- Each unit occupies its portion of the perimeter by moving clockwise to the left flank of the next sector.
- Each element then takes action per the memory aid, "SLSS" (stop, look, listen, and smell).
- Element then reconnoiters forward of its sector with designated individuals by moving a specified distance out from the left flank of the sector, moving clockwise to the right limit of the sector; and reentering at the right flank of the sector.
- Element leaders report indications of enemy or civilians, suitable listening and observation post positions, rally points, and withdrawal routes.
- The patrol leader either directly positions or tasks element leaders to assign an observation post and listening post in front of each sector, designates withdrawal routes, establishes communications, and commences the patrol base routine.

Squad-sized patrols generally occupy a cigar shaped perimeter, while platoon-sized patrols generally occupy a triangle-shaped perimeter. The patrol leader and another element leader or the assistant patrol leader inspects and adjusts the entire perimeter as necessary. After the patrol leader has checked each element's sector, each element leader develops a fire plan sketch of their assigned sector of the perimeter, then designates two Marines to form a reconnaissance team to

conduct local reconnaissance. The purpose of forming this reconnaissance team from all elements of the patrol is to increase situational awareness across all elements in case the patrol must move to or stay away from the areas reconnoitered. The patrol leader issues an order to conduct reconnaissance to the reconnaissance team (to include a five-point contingency plan), the reconnaissance method, and detailed guidance on what to look for such as reconnoitering the alternate patrol base, possible rally points, threat activity, water, built-up areas, or human habitat, roads, or trails. The reconnaissance team conducts the prescribed mission and reenters when and where the patrol leader dictates. Other decisions and considerations can include the following:

- Squad-sized patrols do not typically send out a reconnaissance team at night.
- Reconnaissance teams should prepare a sketch of the area to the patrol's front, if possible.
- The patrol remains at 100% alert while the reconnaissance team is out of the patrol base.
- If the patrol leader feels the patrol was tracked or followed, they may elect to wait in silence at 100% alert before sending out reconnaissance.
- Upon completing the reconnaissance, the patrol leader analyzes information to confirm the suitability of the patrol base location, and either moves the patrol to the alternate location or begins priorities of work.

Priorities of Work

Once the patrol leader has been briefed by the returning reconnaissance patrols and determines the area is suitable for establishing the patrol base, the patrol leader designates or modifies work priorities to establish the patrol base. To be effective, the priorities of work must consist of clear tasks to be completed in order of most important task to least important. These tasks should also include the degree of completion (e.g., defensive positions could mean skirmisher trenches or fighting holes) and timelines for completion. Element leaders inform the patrol leader upon completion of priority tasks in order to be inspected by the patrol leader or assistant patrol leader. Priorities of work are determined in accordance with METT-T considerations. Plans for the priority of work inside the patrol base include the following:

- Security plan.
- Defensive fires plan.
- Fire support plan.
- Communications plan.
- Withdrawal plan.
- Weapons and equipment maintenance plan.
- Resupply plan.
- Meal plan.
- Rest plan.
- Alert plan.
- Field sanitation and hygiene plan.

Security Plan. Execution of the patrol base security plan is a continuous task for all patrol members. The patrol base makes use of all passive and active measures to continuously cover the entire perimeter. Establishing the security plan typically includes:

- Determining whether there are any requirements to readjust positions following the reconnaissance team's return.
- Employing all elements, weapons, and personnel to meet the conditions of the terrain, enemy, or situation.
- Assigning sectors of fire to all personnel and weapons.
- Developing small unit sector sketches and the patrol fire plan.
- Confirming the location of the best fighting positions for cover, concealment, observation, and fields of fire (element leaders supervise placement of aiming stakes and command-detonated explosives).
- Identifying one point of entry and exit, and always counting personnel in and out of the patrol base. All Marines are challenged in accordance with the unit's SOP.
- Preparing hasty fighting positions at least 18 inches deep (at the front), and sloping gently from front to rear, with a grenade sump if possible.

Defensive Fires Plan. Like any combat operation, fires planning is an essential element. During initial planning prior to occupying the patrol base, the patrol leader coordinates anticipated requirements with the unit commander. Once inside the patrol base, the patrol leader may be required to adjust the initial plan or keep it as originally planned. If there are any changes, the patrol leader conducts further coordination with the unit's headquarters and republishes the fire support plan to all members of the patrol base.

Fire Support Plan. The patrol leader either ensures there are no required changes to the existing fire support plan, or adjusts it by planning and coordinating any changes with HHQ. If a forward observer or JFO is attached to the patrol, the patrol leader uses their expertise and assistance with additional fire support coordination.

Communications Plan. Communications must be maintained with HHQ, observation posts, and within the unit. Duties for maintaining communications may be rotated between patrol members to allow for rest, continuous monitoring, radio maintenance, or other priorities of work as deemed necessary. The communications plan must also include all other signal information, cryptographic change requirements, timing for communications devices, and challenge/passwords.

Withdrawal Plan. The patrol leader identifies the locations, method, signal, and order of withdrawal. The locations of where the patrol will withdraw to are largely METT-T dependent, gained from knowledge confirmed by earlier reconnaissance. Areas to withdraw to may include rally points, linkup points, and/or alternate patrol bases. The withdrawal plan should also address what members of the patrol will do if the patrol base is forced to move and how to establish communications if lost (i.e., as part of the five-point contingency plan).

Weapons and Equipment Maintenance. The patrol leader ensures that machine guns, weapon systems, communications equipment, NVDs, and other critical or specialized equipment are

maintained. Additionally, the patrol leader ensures that systems are not all disassembled at the same time and are only disassembled during daylight to avoid losing parts. For example, if a critical weapons system such as one machine gun is down for maintenance, then security for all remaining systems should be adequately raised to compensate.

Resupply Plan. The patrol leader should consider the cross load of ammunition, meals, equipment, and other supplies. The assistant patrol leader (or other designated representative) organizes resupply actions, such as water collection parties, as necessary. Prior to departure, personnel assigned to resupply details must receive a combat order like any other small unit to contend with any contingencies.

Meal Plan. At a minimum, security and weapons maintenance are performed prior to eating. Ideally, no more than half of the patrol eats at once. Marines should typically eat one to three meters behind their assigned positions to avoid attracting insects, rodents, and larger animals.

Rest Plan. The patrol rests as necessary to conduct or prepare for future operations. The patrol leader establishes a rest plan considering all priorities of work balanced with the security of the patrol base and the requirement to conduct patrols outside of the patrol base.

Alert Plan. The patrol leader establishes the alert posture (usually a percentage of the patrol that remains awake) and a stand-to time. The plan ensures all positions are checked periodically, observation posts are relieved, and that at least one leader is always alert. Stand-to time is usually specified by unit SOP, such as from 30 minutes before until 30 minutes after the beginning of morning nautical twilight (BMNT) and the end of evening nautical twilight (EENT).

Field Sanitation and Hygiene Plan. The patrol's corpsman recommends a designated area for a field head and locations for field hygiene (e.g., slit trenches) to the patrol leader. Once approved, the corpsman ensures these areas are prepared and marked. All Marines should be directed to conduct personal hygiene daily, such as brushing their teeth, washing their bodies/faces, shaving, and changing their socks. The patrol must never leave trash behind since it is an indicator of the patrol's presence and can give the threat intelligence. All trash should be compressed to the smallest size as possible. Trash is either carried out, buried separately, or placed in slit trenches that are to be filled in when the patrol departs. All areas that have been excavated are filled in and camouflaged to conceal their location as much as possible.

DEPARTING THE PATROL BASE

Before departing the patrol base, all signs of the patrol's presence are removed and the area is left to appear as though it had not been occupied. The patrol normally departs in the reverse order as it occupied the patrol base in. As the patrol base is exited, designated Marines ensure that the patrol's tracks are covered as much as possible.

PART II. SCOUTING

CHAPTER 6.
THE SCOUT AS A HUNTER

INTRODUCTION

The importance of effective scouting in all patrols cannot be overstated. The lives of Marines may very well depend on the success or failure of a Marine's scouting skills and ability to observe. Successful scouting ultimately depends on proficiency in training through exercises that replicate realistic conditions and foster Marines' abilities to make accurate and rapid decisions while remaining cognizant of the unit commander's mission and intelligence requirements. Scouting is applicable to all environments and tactical missions from combat to stability activities.

Scouting
Scouting involves the effective observation of the operational environment, collecting tactically relevant information, interpreting what is important, and accurately reporting those observations. Scouts actively search for threats and determine their intentions, locations, habits, tactics, and patterns of life, as well as other critical environmental factors which contribute to the unit commander's understanding of the operational environment.

Effective scouting begins at the individual level and applies to all types and sizes of patrols ranging from fire teams to platoon-sized elements. Scouting requires proficiency in observation, optical equipment, tracking skills, weapons use, cover and concealment, movement, and route selection. Proficiency in these skills under daylight or limited-visibility conditions is necessary.

Basic Required Scouting Skills
To be effective, scouts must be proficient in—

- Developing tactical situations and gaining meaning from what they observe.
- Understanding and collecting upon the commander's intelligence requirements.
- Developing an understanding of the enemy t by identifying enemy locations, movement techniques, and TTP.
- Identifying patterns in human behavior.
- Estimating enemy composition and strength.
- Observing and uncovering anomalies in the operational environment and accurately reporting information in a timely manner.
- Utilizing movement techniques and selecting routes to effectively move through any terrain.
- Utilizing camouflage, cover, and concealment.
- Recognizing terrain features and understanding their tactical value.
- Reading maps, GRGs, and aerial photographs to determine location and direction.

- Making accurate sketches.
- Understanding how to use all organic daylight optics and NVDs.

ADVANCED SCOUTING

Advanced scouting employs the three-pillar approach shown in figure 6-1 in the identification and analysis of threat behavior—enhanced observation, tracking, and profiling. The purpose of these pillars is to create a mindset that produces a more situationally aware and tactically cunning Marine. Marines trained and armed with advanced scouting skills are more capable and confident because they can observe, move, and act to more effectively and quickly accomplish the mission.
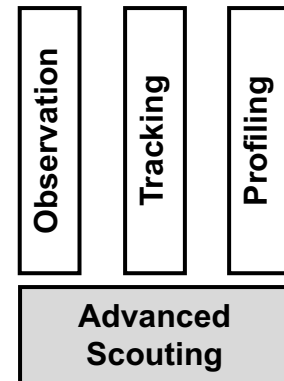
A Marine employs scouting methods used by hunters, studying their prey in its environment, including its habits and routines. To study the threat, Marines must integrate the hunter mindset into their psyche. This includes observing the surroundings more deeply than is common, employing human tracking skills, and profiling people in the

Figure 6-1.

environment to proactively uncover threats. In implementing hunting skills, the scout becomes more aware of the presence of pre-event indicators by identifying items, events, or people based on their behavior and interaction with others. Scouts can track humans and vehicles by reading the natural terrain. A scout can pursue an armed threat and gather data that may suggest their actions and intent. A scout understands the mission and the intelligence collection requirements and is observant to accurately record and report information. The scout understands the principles of enhanced observation and basic human behavior and uses them to exploit the threat's actions and focus on internal decisions that must be made. Scouts must also understand the threat's observations and decision-making processes to be able to predict behavior. In irregular warfare, Marine scouts seek to identify a threat who blends into the population. In traditional warfare, scouts detect threats at greater distances and provide early warning and detection.

Enhanced Observation Skills
Enhanced observation is the most essential element of advanced scouting skills. Enhanced observation involves three elements—seeing, assessing, and communicating. Being able to more accurately and effectively observe the environment allows Marines to better track and profile a threat. A scout selects and uses the appropriate optics available (from the naked eye to advanced mechanical optical systems) to see objects and events, both hidden and distant. Through attention to detail, a scout establishes a baseline of what is normal in an environment and detects anomalies from it. Enhanced observation describes how and why humans perceive information, and includes techniques to improve observation methods and more effectively use optics (i.e., day, night, and thermal) to detect anomalies in the environment. This enhanced observation skill set establishes the basis for how Marines detect anomalies, such explosive hazards, obstacles, suicide bombers, and disruptions within human networks.

Tracking Skills

Tracking skills give Marines an ability to read the physical terrain in order to detect human activity. With training, Marines can track humans and vehicles by reading the evidence left behind (ground spoor and aerial sign), conduct assessments, and gather information they were not able to before. A scout trained in tracking can effectively pursue an armed threat and gather data that indicates the threat's actions and intent. Tracking supports six main tasks which relate to the various types of patrols Marines conduct:

- To pursue to make contact. Tracking supports the pursuit of an armed threat or friendly forces in a contact patrol.
- To follow up and acquire information. Tracking supports reconnaissance patrols in locating the threat and their movement.
- Force protection. Tracking supports security patrols and assists Marines in identifying threat ingress and egress routes, identifying and assessing threat observation posts, conducting counter-surveillance, recognizing indicators of explosive hazards, and identifying potential insider threats or attacks.
- Ground search and area reconnaissance. Ground searches can involve all aspects of patrolling to gain information about a threat or threat activities.
- Post-event intelligence collection. Tracking supports identifying threat TTP, likely lines of drift, and routes of ingress and egress.
- Terrain analysis. Tracking aids the commander in ascertaining the best possible routes for friendly or threat movement.

Profiling Skills

Profiling is a method of proactively identifying human threats through behavioral pattern analysis and recognition. It is an extremely valuable skill set when patrols are employed among a population (see chapter 10 for more detailed information). Profiling the threat allows Marines to move through the decision-making process more rapidly and effectively. This influences actions at all levels of command, not only increasing individual survival on the battlefield, but assisting commanders in developing their estimates of the situation, intelligence preparation of the battlespace (IPB), and in targeting threats. Profiling equips Marines with a more thorough understanding of human behavior and the ability to read the human factors and sociocultural aspects of the environment. A Marine is more aware of pre-event indicators by identifying potential persons of interest through their behavior and interaction with other humans. It allows Marines to better assess changes in their environment and identify potential threats, as well as assess the effectiveness of their operations through identifying atmospheric shifts in population dynamics. When dealing with possible insider threats, the use of combat profiling skills greatly increases a Marine's survivability and overall situational awareness. Profiling allows Marines to be proactive and operate before an incident instead of after it).

THE SCOUT AS A HUNTER

As warfare has evolved, the Marine Corps recognized that its scouting skills were insufficient to adequately defend against emerging irregular threats. Studies indicated that, unbeknownst to them, Marines were acting more like prey than predators, and lacked enhanced skills and training required to meet emerging threats. To address these emerging irregular threats, the Marine Corps sought new and innovative ways to develop enhanced scouting skills. The Service went outside traditional sources to capture the experience and knowledge of professional big game hunters, seasoned trackers, and experienced law enforcement professionals to augment Marines' scouting skills. The culmination of these efforts was the development of the Service's Combat Hunter training program. This program was based upon the pillars of advanced scouting—enhanced observation, tracking, and profiling skills—which allow Marines to increase their situational awareness and more effectively identify, analyze, locate, follow, and neutralize both traditional and irregular threats in any type of military operation. Ultimately, the successful application of these enhanced skills provides increased operational effectiveness and reduces casualties. By mastering these scouting skill sets, Marines are more situationally aware of the operational environment. They no longer act as prey and become active predators. (Observation is covered in chapter 8, tracking is covered in chapter 9, and profiling is discussed in chapter 10.)

The Hunter's Mindset

The hunter's mindset is the integration of enhanced observation, tracking, and profiling to produce a more ethically minded, tactically cunning, and lethal Marine who is better prepared to succeed. Marines employing hunter skills while patrolling improve visual acuity, understanding of the threat, human behavior. They possess increased abilities to identify, analyze, and act on environmental anomalies that could include changes in patterns of life, indications of an emplaced explosive hazard, fleeing enemy, or possible insider threats. A Marine with a hunter's mindset sees hidden threats, and is better trained in utilizing the naked eye and the capabilities and limitations of optical systems to observe their environment. Through close attention to detail, Marines armed with a hunter's mindset establish a baseline understanding of the environment and detect subtle anomalies from that baseline within the environment.

The following two vignettes illustrate the value of hunting skills.

> **Vignette 1:** An understrength rifle squad consisting of two fire teams and a machine gun team were conducting a security patrol in Afghanistan when it was engaged by small arms fire coming from a tree line to the north. Taking cover around a building (called a *qalat*), the patrol turned a corner and split into two sections to reconnoiter the immediate area. With the patrol split into two reinforced fire teams—one traveling north and one traveling south—the patrol began receiving fire from the adjacent cornfield about 300 to 350 meters to their west, and sporadic but increasing fire from two *qalats* to the north. The patrol resisted the urge to immediately rush the tree line.
>
> Instead, the patrol leader practiced tactical patience, took cover again, and took a moment to observe the situation. Scanning from right to left with optics, the squad leader noticed several fighters moving into the *qalats* to the right and identified them as the largest threat. Simultane-

ously, the squad leader's northern-most fire team observed a lone teenage male in the tree line where the unit had previously received fire from moving to vacate the area with no visible weapons. Utilizing observation and scanning techniques paired with tactical patience, the patrol believed that the fighters were moving to mass in the northern *qalat* and identified what appeared to be a developing "L-shaped" ambush. The squad leader decided to attack what appeared to be the base of the ambush in the *qalats*, and successfully eliminated them with no civilian casualties.

Observation skills can be equally important in building rapport with the population during stability activities, as the next vignette will demonstrate.

> **Vignette 2:** A rifle squad entered a remote village that intelligence reports indicated had not been cooperative for three years. Previous units had attempted to conduct key leader engagements in the area, but were unsuccessful. On their initial visit, the squad leader, a corporal, noticed certain characteristics of one man that were different from everyone else in the village. The squad leader observed how others addressed him deferentially, how he held himself, and how he always seemed to wear new or clean footwear. The squad leader immediately approached the man and quickly established rapport. After a few hours of conversation, it became obvious that the man was the de facto leader of the village, a retired Afghan National Army colonel. The squad leader further discerned that three years earlier, a coalition air strike had killed a donkey that belonged to a local family. The family's efforts to replace the animal through official channels proved ineffective, and the village soon turned against the coalition.
>
> Recognizing a critical window of opportunity, the squad leader purchased a young donkey with his own money from the local bazaar and presented it to the family as a gift. The relationship between the village and the Marines improved almost immediately after this gift was made, and there was a significant downturn in lethal activity in the area.

Elements of Hunting

To be successful, a hunter studies their prey's habits and predicts their routines and behaviors. Marines do not think like animals, but they can study their instincts in a similar manner to predict human behaviors and places where they can be found. Today, threats may speak a different language, have an unfamiliar culture, and act dissimilar to what Marines are used to. The study of threat behavior allows Marines to understand the ways threats appear in various tactical situations; this enhances Marines' abilities to think within the context of the threat's culture. As shown in the top half of figure 6-2, hunting strategies focus on avoiding detection, planning the approach to take advantage of terrain, and proactively hunting the threat. In using these strategies, most hunters utilize the hunting steps shown in the bottom half of figure 6-2 to locate a target, target and pursue it (or them), close with the target, and then eliminate the target.

The Scout as a Hunter Methodology

In figure 6-3, the flow chart shows the general process by which a Marine trained in hunting skills can employ all three pillars of advanced scouting during a patrol. Marines employing these skills hunt for and collect information necessary to gain a deeper understanding of the operational environment to answer the unit commander's intelligence requirements and identify threats. It begins when a Marine on patrol notices something out of place that could lead to an incident. The

Hunting strategy		
Avoid detection	Plan approach and use terrain	Proactively hunting prey

Hunting steps			
Locate the target	Target and pursue	Close on the target	Eliminate the target
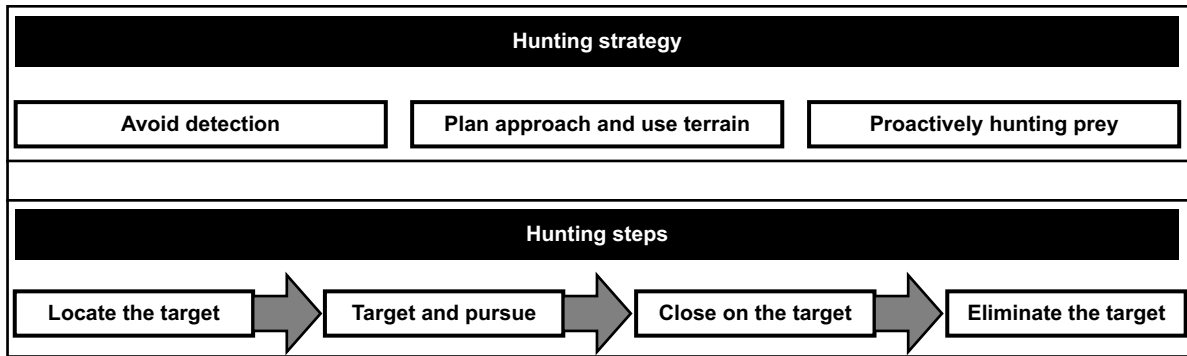
Figure 6-2. Hunting Strategies and Steps.

Marine then goes through a reasoning process and employs the pillars of advanced scouting—observation, tracking, and profiling—to determine whether what they observed could be a threat.

Through reasoning, the Marine develops a decision on what to do with the person or object they observed—kill, capture, contact, or leave it alone. If the decision is to leave it alone, the scout repeats the cycle again and carries on with the mission. If the Marine does decide to kill, capture, or contact, they can collect information through tactical questioning and/or site exploitation. The Marine's scouting and collections efforts will then be focused on generating information reports for submission to HHQ.

It is important to note that these collection efforts serve as critical pieces of a larger puzzle that enable intelligence personnel to assemble and build an accurate intelligence picture of the operational environment. Accurate, clear, and timely reporting is critical.
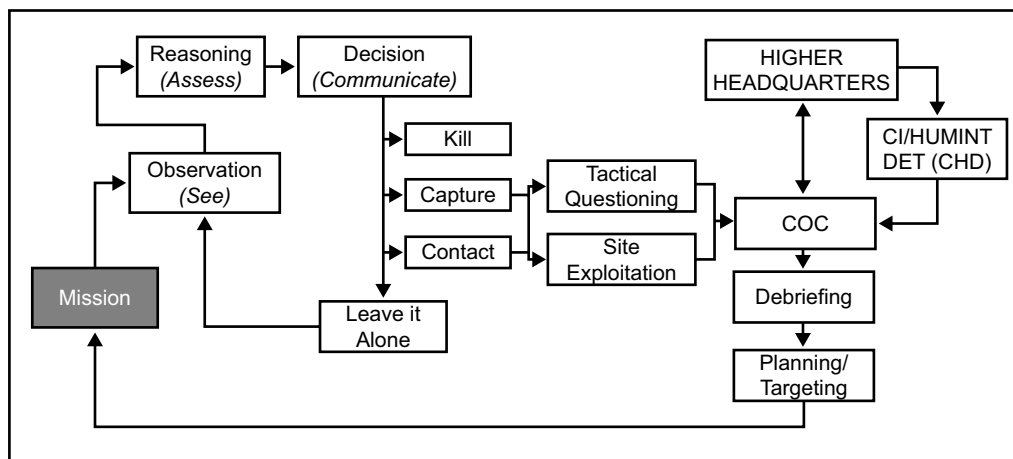
Figure 6-3. Scout as a Hunter Methodology.

THE INCIDENT TIMELINE

Within the timeline of an incident, being left of the bang refers to actions that occur prior to an event or incident. Being proactive reduces the probability that an incident or attack will occur.

Proactive actions include being alert to changes in the environment, assessing pre-event indicators, taking actions to interrupt the incident, or conducting reconnaissance on an objective. These proactive actions can reduce the threat's abilities and foil their plans. Conversely, being toward the right side of the incident timeline refers to actions that occur following an incident or enemy action. Actions taken on the right side of the timeline are reactive.

Figure 6-4 displays an example of an incident timeline. The descriptors of events on the top of the timeline depict actions that may be conducted by the threat. The bottom of the timeline depicts the possible observations or actions undertaken by Marines trained in advanced scouting skills.
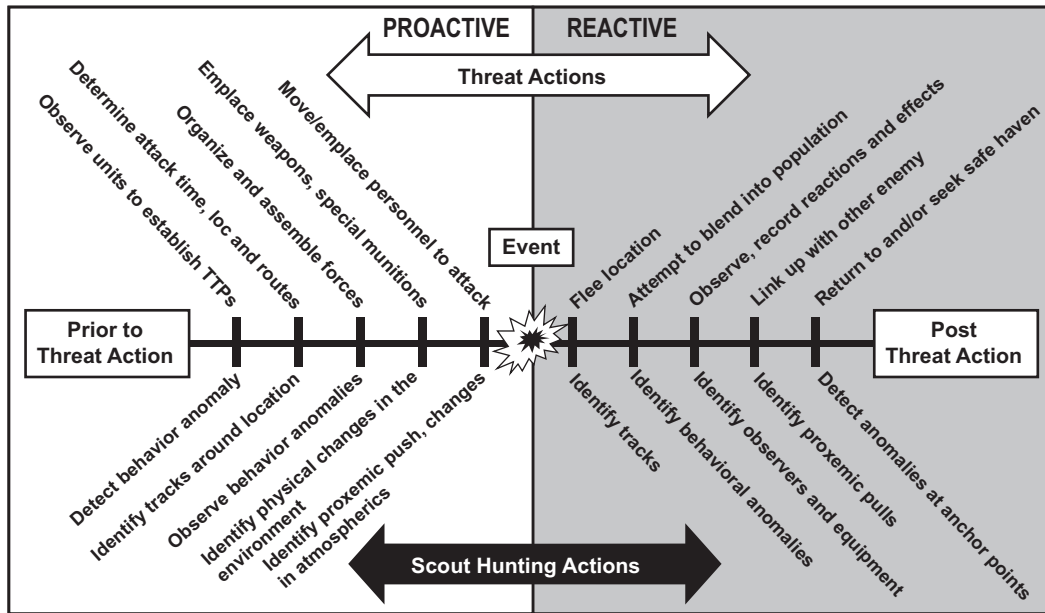
Figure 6-4. Incident Timeline.

TRAITS OF AN EFFECTIVE SCOUT

A scout must be ready for all tactical situations. This includes being continually aware of the environment, as well as their own physical and mental state. Scouts must continually develop traits that allow them to adapt to all situations and remain proactive in foreseeing and analyzing unfolding events. These traits include:

- Tactical patience.
- Tactical cunning.
- Deception.
- Good shepherd philosophy.

Tactical Patience
Tactical patience is understanding and determining when the most advantageous conditions for success are possible. It is results-oriented (normally driven by events), and may take hours,

days, weeks, or—in some cases—even years. An example of short-term tactical patience may be that when conducting an ambush, Marines may have to lay motionless for hours awaiting an enemy security element to pass the kill zone so they can attack the main body. Longer term tactical patience may be required when trying to identify threat groups and networks operating within a population.

Tactical patience may not always be possible due to—

- Resource shortfalls or limitations in personnel, intelligence, surveillance capabilities, fire support assets, or equipment such as NVDs.
- The immediacy of the threat to friendly forces or civilians.
- Other circumstances that demand more immediate attention or action.

Tactical Cunning

Tactical cunning is the art of employing fundamental skills in innovative and crafty ways to out-think and out-pace the threat. This means Marines should try to think like the threat to outwit them. Advanced scouting techniques identify anomalies from the baseline that alert Marines to threat surveillance and other pre-event indicators that may precede a threat's action, improving the way Marines make decisions and increasing the proactive responses to the threat. Thinking like the threat provides Marines the tools to anticipate, locate, recognize, and counter threat actions by continually keeping them off balance, developing new ways to defeat them, and staying ahead of them in the decision-making process. Figure 6-5 shows an example of Marines using tactical cunning to locate and defeat an enemy sniper.
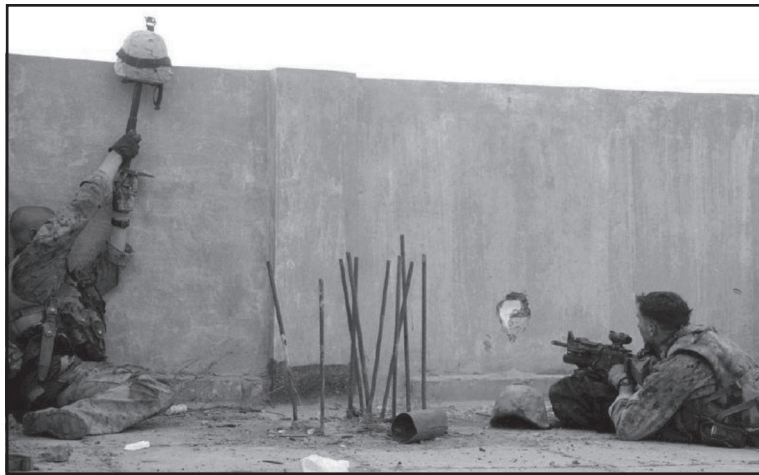
Figure 6-5. Marines Using Tactical Cunning to Locate a Sniper.

Deception

Deception involves the use of tactics designed to purposely deceive the threat and mislead them into taking action. The primary goal of deception is to cause a reaction to expose a threat and make them more vulnerable to targeting. Deception can be intended to create or lead to either lethal or nonlethal effects. Lethal effects make the threat susceptible to the effects of weapons, or force them into unfavorable maneuver. Nonlethal effects may be desired to force a threat out of hiding, make them move away from contact, discredit their efforts, or deny them popular support.

Good Shepherd Philosophy

Civilian populations present dynamic challenges to military operations. Everything Marines do—from the unit's chosen course of action to the actions an individual Marine takes on patrol— can either build or break trust with the population. Fostering the population's trust, cooperation, and assistance can be vital in successfully achieving an objective or attaining an operation's end state. However, it can be easy for Marines to unintentionally alienate the population and lose their trust and support. Taken to extremes, this can unintentionally create more enemies and generating support for threat networks, such as an insurgency that is hostile to Marine forces.

The good shepherd philosophy is intended to guide Marines' actions to demonstrate the good intentions of the Marine Corps when operating within a population. It is a philosophy that invokes the "golden rule" (i.e., do unto others as you would have them do unto you), encouraging the treatment of people the way we would want to be treated ourselves if positions were reversed. It likens the civilian population to sheep, and the Marines to shepherds. Just as a shepherd's actions are in the best interest of the flock, Marines must demonstrate that they are operating in the population's best interests. This philosophy was invoked by retired General James Mattis when commanding the 1st Marine Division in his March 2003 letter on the eve of Operation Iraqi Freedom, Commanding General's Message to All Hands, which directed the division to "Demonstrate to the world that there is 'No Better Friend, No Worse Enemy' than a U.S. Marine." He did the same in his 23 March 2004 letter to all hands before the division returned to Iraq after the campaign morphed into counterinsurgency operations, with the directive, "First, do no harm."

An example that simplifies the good shepherd philosophy is written an excerpt from *On Combat: The Psychology and Physiology of Deadly Conflict in War and Peace* by retired US Army Lieutenant Colonel David Grossman. Within this excerpt, Grossman generalizes a society's people as belonging to one of three basic categories:

- _Sheep_. Ordinary people who could only hurt another by accident.
- _Wolves_. Those who view the sheep as prey and seek to bring violence to disrupt the lives of the sheep for their own gain.
- _Sheepdogs_. Those who are neither sheep nor wolves; they are capable of violence, but only for defending the sheep at all costs.

> *The sheep generally do not like the sheepdog. He looks a lot like the wolf. He has fangs and the capacity for violence. The difference, though, is that the sheepdog must not, cannot and will not ever harm the sheep. Any sheep dog that intentionally harms the lowliest little lamb will be punished and removed. Still, the sheepdog disturbs the sheep. He is a constant reminder that there are wolves in the land. The sheep would much rather have the sheepdog cash in his fangs, spray paint himself white and go, 'Baa.' Until the wolf shows up. Then the entire flock tries desperately to hide behind one lonely sheepdog. —D. Grossman*

Marines should understand that in protecting the flock, they foster respect, common understanding, and trust. Utilizing the skills of enhanced observation and tracking, Marines can identify wolves as anomalies from their baseline understanding of the environment, and proactively mitigate threats. Employing hunter skills helps to deny the threat safe haven among a

population and positively affects interaction with the local population. Marines establish, build, and maintain rapport, enhancing their perception of population atmospherics utilizing profiling. However, these actions will only be effective with the local populace if they recognize that Marines are there for their protection and to do no harm.

INTERLOCKING FIELDS OF OBSERVATION AND REPORTING

Marines must take a combined arms approach to close the seams and gaps in the environment where threats could hide. To accomplish this, Marines must understand their environment, their location, and the orientation of friendly units' positions. In addition, they must know the capabilities and limitations of their optics, understand how and where to effectively observe for threats, and their fields of observation must overlap with adjacent Marines and units. Furthermore, they must understand how to quickly, effectively, and accurately communicate threats and employ their weapons systems. The integration and use of these systems decrease a threat's chance to hide and increases opportunities to expose them to a combined arms dilemma.

Seams and Gaps

Seams and gaps are those areas of dead space on the battlefield where the threat operates openly or hides from our forces. Seams and gaps may also include the threat's use of camouflage, concealment and blending in with the local population (i.e., hiding in plain sight).

Seams. Seams are spaces where two surfaces meet or overlap. A seam is typically overlooked when planning fires or observation sketches. For example, where two AOs overlap, the seam is typically less patrolled or observed.

Gaps. Gaps are any breach in the continuity of tactical dispositions or formations beyond effective small arms coverage. Gaps (soft spots, weaknesses) may in fact be physical gaps in the enemy's disposition, but they also may be any weakness in time, space, or capability; a moment in time when the enemy is overexposed and vulnerable, a seam in an air defense umbrella, an infantry unit caught unprepared in open terrain, or a boundary between two units. (MCRP 1-10.2)

Scouts employing hunter skills reinforce the concept of "every Marine a collector." They are better able to recognize threats utilizing interlocking observation and reporting because they are more situationally aware and armed with the ability to communicate, collect, identify indicators, and take action more quickly. Marine scouts understand the principles of observation and basic human behavior in order to anticipate threat actions, expose them to targeting, and continually stay ahead of them in the decision-making process. The hunter's mindset and skills are applicable in any type of military operation. When operating against an irregular threat, they facilitate identifying hidden threats and threats which attempt to hide in the population. In a traditional conflict, Marines utilize these skills in detecting threats at greater distances and providing early warning of threats. Central to all these skills is critically-thinking Marines who refine their decision-making capabilities by understanding the decision-making process and are aware of the physical and physiological responses they go through when faced with dynamic situations.

Refining these skills and understanding the effects they have on the mind and body make Marines more tactically capable, lethal, and effective.

Interlocking Observation

Interlocking observation is the method that a team uses to cover an area using overlapping arcs of coverage. This usually involves a Marine or team watching an area that another Marine or team cannot see or cover with fire, or an area that is dead space. Interlocking observation involves working together with adjacent Marines or units to coordinate and assign areas for observation. Much like interlocking fields of fire, these areas should overlap one another to ensure observation coverage that limits the chances of seams or gaps in which a threat could hide. Marines most be well-trained in the employment, capabilities, and limitations of all optics and NVDs to create an in-depth view of the environment.

Interlocking Reporting

Interlocking reporting is the transmission between different units (e.g., higher, adjacent, subordinate, and supporting) to create a better CTP of the environment for all units. Interlocking reporting may be commonly referred to as cross-talk. It is not only critical for units to share the information with subordinate units and HHQ, but also with adjacent and supporting units. Additionally, Marines should not forget units who may be required to travel through or into their AOs and should assist their situational awareness as well. No one unit below the MAGTF can see the entire CTP at one time. It is a continuous and collaborative effort through which the sharing of information is essential. By sharing information, a much more in-depth CTP can be developed for all Marines, which enables the ability to accelerate the decision-making process and outpace the threat's ability to plan and conduct operations.

CHAPTER 7.
SCOUTING ACTIVITIES IN SUPPORT
OF INTELLIGENCE COLLECTION

INTELLIGENCE COLLECTION

Successful intelligence collection helps to reduce uncertainty regarding the enemy, weather, and terrain, and to identify critical variables within the operational environment. Units task their organic collection assets and request external support to answer the commander's PIRs and other intelligence requirements. Scouting skills are ideally suited to seek out and find the information to answer intelligence requirements and fill in information gaps about the operational environment. With the increasing pace of the Service's involvement in irregular warfare, the demand for intelligence capabilities at the tactical level has grown exponentially. Marines employing scouting and hunting skills assist intelligence collection activities and provide enhanced capabilities to collect valuable information for tactical level operations. These skills, paired with the mindset that every Marine is a rifleman, a hunter, and a collector, enhance the unit commander's ability to proactively assess, analyze, and confront threats.

THE INTELLIGENCE CYCLE AND THE SCOUT AS A HUNTER

The process used to develop intelligence is called the intelligence cycle (refer to figure 7-1).

As shown in this figure, the Marine Corps intelligence cycle consists of six sequential yet interdependent steps:

- Planning and direction.
- Collection.
- Processing and exploitation.
- Production.
- Dissemination.
- Utilization.

Although collection is the second step, collection management is a continuing process and occurs concurrently throughout the cycle. Intelligence collection is a process that helps to identify and validate intelligence requirements, prioritize them, determine effective means for acquiring information to help answer them, and to develop, execute, and supervise   intelligence and
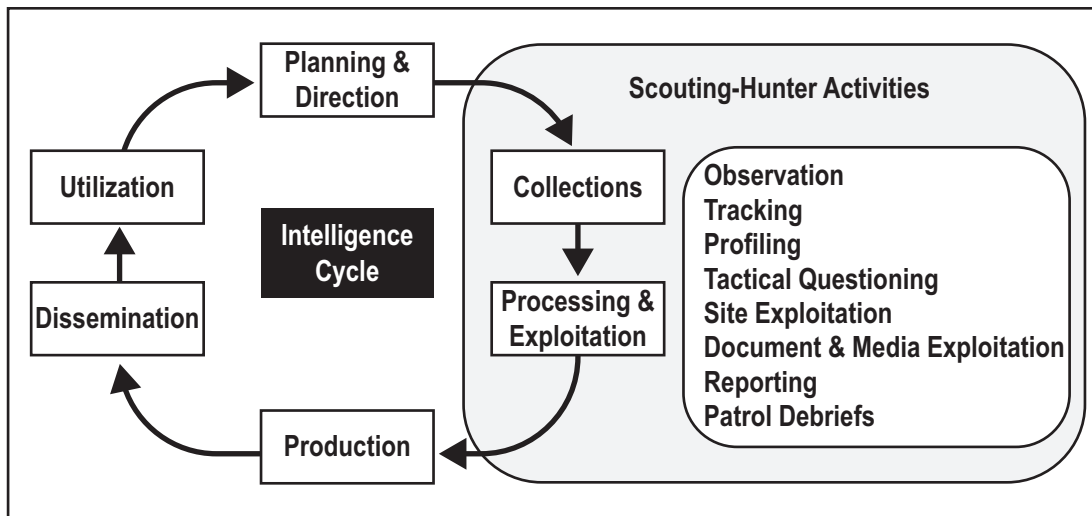
Figure 7-1. Scouting-Hunter Activities within the Intelligence Cycle.

reconnaissance operations. The intelligence cycle is a continuous wheel that turns in response to additional information as it is introduced. Properly tasked and trained scouts who are armed with their unit intelligence requirements greatly assist in developing the intelligence picture, especially in the collections, processing, and exploitation phases of the intelligence cycle.

The hunting skills employed by a scout (i.e., observation, tracking, and profiling) are enhanced with enablers that give Marines an increased ability to focus their skills on collecting more accurate, timely, and effective information. The enhanced situational awareness and proactive mindset of Marines trained in scouting helps their units uncover and validate information collected from the environment, directly contributing to the collection process. This increase in accurate information (or evidence) available to the unit results in a better understanding of critical variables in the environment; the ability to identify indications and warnings, anomalies, and targets; and to provide for more effective tactical planning. Unit commanders provide patrols with the intelligence requirements generated to address information gaps in what is known and what is perceived about the operational environment. When assembled together, intelligence requirements provide the pieces of the puzzle that assist the commander and staff in understanding the environment.

SCOUTING TO DEVELOP THE INTELLIGENCE PICTURE

During all patrols, the employment of scouting and hunting skills contributes to the development of the intelligence picture. This starts with the individual Marine at the lowest level (i.e., every Marine a collector). Intelligence is collected through many different means. When scouts observe, record and report something that may seem unimportant, it could have very significant value when assembled by the intelligence staff at the HHQ. Information reported by individual Marines, whether on specified intelligence requirements or not, may generate leads that require further intelligence collection or satisfy other requirements that were not made known to the patrol. Scouting to develop the intelligence picture requires an alert and inquisitive mind.

An example of how this happens could be a Marine patrol that observes anti-American graffiti and notes a change in the attitude (i.e., atmospherics) of the local villagers. Using questioning techniques while engaging with members of the village, the patrol learns that two suspicious strangers have recently arrived. The patrol locates the two strangers and employs tactical questioning to evaluate whether they represent a threat. Additional questioning of the village elder provides more information concerning the strangers' motives. The strangers are detained for an in-depth interrogation by a CI/HUMINT detachment. Site exploitation of the strangers' house yields media that the unit exploits for information. The information obtained by these actions identifies a plot to attack Marines. This enables the unit to plan and conduct successful operations and results in criminal proceedings for the detainees. The capture, questioning, or detention of each suspect assists in understanding their affiliations, roles in, and links to known threat networks, as well as their ties to key neutral and friendly networks in the AOs. Each individual incident a Marine observes facilitates a trail that leads to increasingly more revealing information about the threat.

EMPLOYING SCOUTING SKILLS IN COLLECTION ACTIVITIES

Collection activities include a myriad of information-gathering techniques and procedures that contribute to the overarching intelligence picture. All applicable information collected against specified intelligence requirements contributes to the intelligence cycle and results in reporting and disseminating intelligence to facilitate the commander's decision-making process and operation assessment process. Marines utilizing a hunter's mindset and trained in advanced scouting skills can more readily identify, observe, profile, and track threats and other environmental factors that reduce the unknowns about the operational environment. Marines may be supported by intelligence enablers; however, the most critical tools for tactical-level unit success are individual Marines' employment of the following skill sets:

- Tactical questioning.
- Site exploitation.
- Document and media exploitation (DOMEX).

Tactical Questioning

Tactical questioning is a basic field questioning technique used to gain information of immediate tactical value from a captured or detained person at or near the point of capture, before the individual is placed in a detention facility. Tactical questioning was designed for use by any Marine and is a vital skill when conducting patrols. Ideally, tactical questioning should only be performed by a Marine who has undergone a tactical questioning training course. Tactical questioning is not only applicable to captured or detained people; it is also useful when engaging the local population. Tactical questioning helps Marines understand the critical variables of the environment, establish baselines and atmospherics within certain areas, and determine habits and patterns of life. It can also assist in building rapport, familiarity, and trust with the local population, which is equally important (refer to chapter 10). Tactical questioning is a fundamental skill set, but is not for conducting interrogations, as these specialized tasks are reserved for CI/HUMINT Marines. Tactical questioning skills allow patrols to gain the maximum amount of

immediately relevant information from detainees or the local population being questioned. Marines selected to perform tactical questioning should have well- developed interpersonal skills. Ideally, at least one Marine per patrol has been well trained in tactical questioning skills.

Site Exploitation

Site exploitation is a series of activities to recognize, collect, process, preserve, and analyze information, personnel, and/or materiel found during the conduct of operations. (DOD Dictionary) Site exploitation involves a systematic search of a secure location that accomplishes several purposes. It enables the unit to discover and collect physical evidence and information that can be used to detain, prosecute, and convict individuals, as well as to develop tactical or immediate-use intelligence to support operations. Marines must possess the ability to quickly transition from their current operations into a site exploitation when faced with a contact or capture situation versus a kill situation. When Marines make contact, capture, or kill an individual suspected of an activity, or when a threat base of operations is uncovered, Marines conduct site exploitation to search for and collect evidence and information that links the individuals to the act or suspected criminal activity. Successful site exploitation provides essential incriminating evidence needed to find, capture, and convict as many detainees, insurgents, terrorists, or criminals as possible.

Site exploitation processing, particularly in complex scenarios, requires careful division of labor to ensure the most successful outcome. These roles may be combined or expanded based on the complexity of the situation. Based on the time available, the team assigned to conduct site exploitation within a patrol must prioritize the tasks to be completed to best accomplish the mission. For site exploitation to be successful, tasks should be prioritized in the following order:

- *Initial assessment*. An initial assessment and walk-through of the scene is conducted, in which care is taken not to disturb items that could be used as evidence.
- *Documentation*. The scene is documented by use of notes, sketches, and photography.
- *Search*. The scene is searched for possible evidence.
- *Process/collect*. Any evidence discovered is processed and collected.

For more information on site exploitation, refer to Army Techniques Publication 3-90.15, *Site Exploitation.*

Document and Media Exploitation

Document and media exploitation involves the location, identification, capture, and exploitation of documents or media that may yield items of critical intelligence or evidence. Patrols are typically not organized or trained to exploit media, such as computers, external hard drives, thumb drives, computer disks, or cellular phones. However, it is important that Marines recognize these items, secure them properly, and transfer them to specialized intelligence personnel for exploitation. Specialized CI/HUMINT Marines may be attached to or support ground units. They may provide interpreter or translator support to triage documents and equipment during site exploitation efforts. These Marines may also provide technical expertise with electronic media exploitation capabilities as well as training in advanced questioning and interrogation techniques.

Document Exploitation. Document exploitation is the systematic extraction of information from threat documents for producing intelligence or answering intelligence requirements. Document

exploitation is a vital information source in developing the intelligence picture. The rapid evaluation and exploitation of documents is a shared responsibility. It originates with the capturing unit and continues until complete extraction of pertinent information and the arrival of the document at the permanent repository (normally at the joint force level). During site exploitation, Marines may triage discovered documents to identify information of immediate tactical value and separate them from other documents. Effective triage and handling by the small unit, in conjunction with the unit's intelligence section, ensures the rapid identification of documents requiring special handling or special expertise.

Media Exploitation. Marines should be familiar with basic media exploitation and preservation practices to immediately exploit and preserve information of potential intelligence and/or evidentiary value. However, the task of identifying and extracting information from multimedia sources requires a higher level of expertise than most ground units possess.

Supporting CI/HUMINT, signals intelligence, and other special units should be notified immediately if such support is required.

IDENTITY ACTIVITIES

Identity activities involve the collection of biometric data in order to compare unique physical and reputational attributes to verify an individual's identity. An identity attribute is any piece of data that can be used independently or in combination with other data to develop a biometric description for identifying a specific individual.

Identity Attributes

The four categories of identity attributes are:

- *Biographic*. Biographic attributes are information about a person's non-physical personal characteristics.
- *Biologic*. Biologic attributes are measurable and observable physical characteristics of a person.
- *Behavioral*. Behavioral attributes consist of a range of actions and mannerisms that characterize a person's behavior.
- *Reputational*. Reputational attributes consist of what other people or organizations say about a person.

For a partial list of data points for each attribute category, see table 7-1.

Table 7-1. Categories of Identity Attributes.

Biographic	Biologic	Behavioral	Reputational
Names and aliases	Hair and eye color	Body language (e.g., gait, posture, eye movements, hand gestures, or typing patterns)	Legal judgments
Age	Scars, marks, and tattoos		Sworn statements
Birth date	Fingerprints		Public licenses
Birthplace	Iris	Micro-expressions (i.e., brief involuntary facial expressions).	Financial history
Nationality Address	Face		Community observations
Employment status or employer	Palm print	Social affiliations, organizational memberships, or networks (to include tribal or criminal affiliations)	Employer evaluations
Telephone numbers	Voice		
E-mail addresses	DNA [deoxyribonucleic acid]		
Educational level		Media consumption or production	
Military service		Commercial transactions	
Family and family members		Law enforcement records	
Cohabitants		Financial transactions	

Collecting Identity Attributes

An individual's identity is the sum of the attributes by which they are recognized as being distinct from all others. Biologic data is the most verifiable among the four types of attributes. Marines are assisted in collecting biologic data by using advanced, portable, and desktop electronic biometric collection devices. These portable devices allow Marines on patrol to collect biological and biographical information and submit it into searchable databases that can be accessed throughout the world. Biometric collection devices can take flat or rolled fingerprints, facial recognition photos, and iris scans of an individual to match an individual to a database. They can also use these databases to query information to verify the identity of a specific individual from the target population listed on the biometrics enabled watch list. It can notify the operator if the individual has been entered previously into the database or was placed on the biometric enabled watch list, which could display messages requiring that the individual be detained or questioned. Biometric collections devices can also be used to collect and maintain evidence for potential criminal prosecution. These tools greatly enhance Marines' capabilities to identify and capture individuals who are linked to attacks against US forces, acts of terrorism, or crimes.

Use of Biometrically-Collected Data

The collection and use of biometric data allows the commander to make decisions, protect friendly forces, restrict threat mobility, and identify threat networks and actors. Biometric collections also can support and enhance the following:

- Counterintelligence and force protection activities, which can include:
  - Fingerprint analysis.
  - Screening applicants and issuing identification cards.
  - Using identification cards to verify people's identities at checkpoints.
- Host nation police and military personnel screening.

- Detainee processing and handling, which can include:
    - Positive identification of prisoners.
    - System to track details of interactions.
    - Interrogation support.
    - Identification of recaptured individuals
- Detainment of high-value individuals and other persons of interest, which can include:
    - Positive/negative identification of high-value individuals or associated individuals.
    - Watch list verification via the biometric enabled watch list.
- Security and population control, which can include:
    - Civil-military operations.
    - Screening displaced refugees.
    - Identification badging.
    - Separating residents from non-residents.
    - Random checks at checkpoints.
    - Cache or post-incident/IED exploitation.
    - Latent fingerprints to match to individuals.

For further information on identity operations and biometric collection, refer to MCRP 10- 10F.1, *Multi-Service Tactics, Techniques, and Procedures for Tactical Employment of Biom*.

CHAPTER 8.
SCOUT OBSERVATION AND EMPLOYMENT

UNDERSTANDING OBSERVATION AND PERCEPTION

Understanding the way Marines observe and perceive the environment can be critical to identifying threats.

Observation

Observation of a Marine's environment begins with gathering and processing information obtained through the sensory systems; sight, hearing, smell, touch, taste to include other non-sensory systems such as intuition. The sensory systems allow information to be taken in from the environment in order to make perceptions of what Marines see and understand about the operational environment. Some of the things Marines can observe are depicted see figure 8-1.
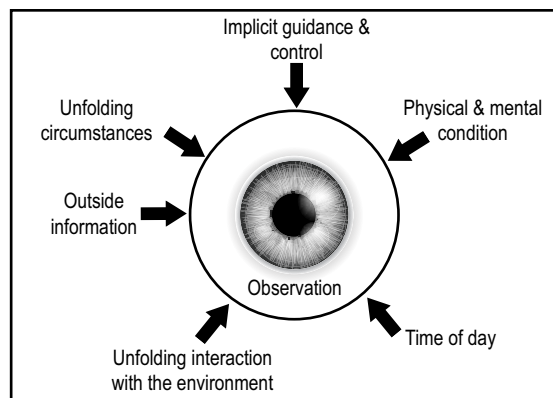
Figure 8-1. Factors That Affect Observation.

Perception

Perception is the process by which sensory information is organized and interpreted to produce a meaningful experience of the world. Humans interpret sensory information based on experience and a variety of other factors; therefore, perceptions are not always true representations of the environment. A lack of understanding of the function and limitations of the sensory systems can lead to errors in perception. Understanding how observation and perception function can assist Marines in becoming more efficient and effective observers.

THE HUMAN EYE

While Marines use all their senses to perceive the environment, most sensory information comes from sight and hearing. The eyes are the primary sensory receptors for the brain, which feed directly into a Marine's ability to make decisions. To fully understand the principles of training the eye, Marines must know its capabilities and limitations. Each eye contains a specific blind spot. This means that there is an area in our visual field (i.e., the area of space that can be seen at one time) that is not seen, yet does not appear as a hole in our vision. The brain does not like incomplete images, so it fills in what it believes it sees. This is called perceptual fill, which is discussed later in this chapter.

Requirements for Vision
The three requirements for vision are light, motion, and edges.

Light. Light is one of the most critical items for sight. To see, there must be some form of light received by the eye to form an image.

Motion. Motion attracts the eye and can sometimes cause motion illusions. For example, if someone focuses on the credits scrolling up the screen at the end of a movie and then looks at a stationary object, that object may appear to be drifting downward.

Edges. The edges of an object define its shape. Without edges, shapes may fade into the background, contributing to disorientation. This disorientation is a similar to the experience or visual effect produced by fog, mist, or snow. Fortunately, the brain knows the importance of edges and processes all visual information to accentuate the edges that are seen.

Daylight versus Night Vision
Daylight vision relies on the eye's ability to see colors, and requires well-lit conditions. Daylight vision is most sensitive to yellow and green colors. For this reason, many fire trucks are being painted these colors because they are the most noticeable in daylight vision. Conversely, the eye does not use color vision during low visibility or night conditions. For the first ten minutes in darkness, the eye is more sensitive to light. After this, the eyes begin adapting to night vision. It takes approximately 30 minutes for one's vision to completely adapt to the dark (i.e., able to "see" in the dark). For example, when a person first walks into a dark movie theater, they cannot see where their friends are sitting. However, after ten minutes of sitting in the dark room, it becomes much easier to see other people and their faces.

The period between daytime and nighttime (i.e., twilight or early dawn) also affects how the human eye perceives color and shape. Sight during twilight is known as mesopic sight. The eye's shift between daytime and night vision can cause inaccuracies in visual perception, making Marines more susceptible to attack during this time. This is one reason for a "stand-to" period at dawn and dusk. During this period, colors appear to change as the light conditions change. Thus, reds, oranges, and yellows appear relatively light in bright illumination, whereas blues appear relatively light in dim illumination.

PATTERN PERCEPTION

A person's brain notices patterns to more quickly process the myriad of sensory information coming in and recognize their surroundings and situation. There are three types of pattern perception that the brain performs—template matching, prototypical matching, and grouping.

Template Matching

Template matching is comparing items and finding their exact match. For example, the capitalized letter "A" is a template match of "A." Recognizing fingerprints and license plates requires an exact template match. Template matching is used during tracking when Marines are following and tracking a specific quarry—ensuring that they are following the correct track.

Prototypical Matching

Prototypical matching recognizes "close enough" matches to what is being looked for. For example, the capitalized letter "A" is a prototypical match of the lower-case letter "a." When Marines are looking for something specific, they are usually looking for prototypical matches. When looking for an exact item, a bias can be created against noticing anything else of relevance, which can result in "change blindness" (explained below). For example, if Marines are only looking for a specific vehicle during an urban patrol, they may fail to notice other vehicles or people that could pose threats. Prototypical matching helps Marines recognize pending threats which they are familiar with, such as ambushes, explosive hazards, and other attacks. For example, when explosive hazards are encountered, they seldom look the same or are placed in the exact same manner. Each one can be very different. Therefore, Marines must continually train to identify (i.e., through prototypical matching) the essential environmental anomalies and indicators that can alert them of impending dangers, such as wires, freshly moved earth, or a local population suddenly leaving a public area.

Grouping

The brain groups things together to create a background and focuses on anomalies that stand out from that background. For example, Marines may notice an old man in a busy marketplace because he is moving slower than other patrons, which is an anomaly to the general order of movement. At the same time, however, the Marines may not notice a threat who is moving with the general population, because their brains group him with the background.

BIAS TOWARD SEEING MOVEMENT

By design, human eyes are predisposed to see movement. They have several characteristics that combine to observe movement under different light conditions—peripheral vision and biological motion bias.

Central versus Peripheral Vision

Humans have only a small area of central vision. The rest of the visual field falls within peripheral vision. Peripheral vision will usually not pick up an object that remains still, but the eye is drawn

to anything moving in the periphery. Paying attention to the periphery is important because it makes Marines more aware of their surroundings and helps them be prepared to respond to things out of their direct fields of central vision. However, paying attention to the periphery demands a lot of concentration, and can only be done for a limited time. A Marine can be expected to effectively observe an area (i.e., using both their central and peripheral vision) for 20-30 minutes under ideal conditions. Therefore, during activities such as manning an observation post or serving as the point on a patrol, it is important to rotate observers frequently to maintain continual effective observation.

Biological Motion

The human eye is predisposed to notice biological motion (i.e., the movement of living things). A human can identify the gender, activity, and even the identity of a person through movement cues alone. For example, a Marine may be able to identify another member of the patrol from a long distance by their movement alone, or instantly tell whether a moving object is human.

Adaptation

Adaptation occurs when people develop the tendency to ignore visual information that is continuously present or seen every day. This information tends to "blend in" because they become conditioned to expect that it is there, and the brain "tunes it out." Adaptation can be helpful because in many everyday situations, information that is continuously present is not very important and can be safely ignored while Marines focus on other information that may be more important. However, adaptation can also be dangerous. For example, Marines may observe trash or graffiti daily in their AO, begin to accept its presence, and overlook its potential importance, even if it is a minor change which could have great tactical significance (e.g., an indicator of an explosive hazard or of a change in the atmospherics in the AO). Therefore, it is important for Marines to use their observation skills and ensure they do not ignore potentially meaningful changes within the environment.

Binocular or Monocular Vision

Most perception is the combination of what is seen using both eyes. The binocular zone is the degree of overlap between the visual fields of the left and right eye. Objects in this zone are perceived three-dimensionally. Objects seen in the left and right monocular zones are perceived in only two dimensions. Binocular vision helps Marines perceive depth. That is why depth perception is affected when a Marine uses an optical device (e.g., NVDs or rifle combat optic) with just one eye (refer to figure 8-2).

HUMAN INFORMATION PROCESSING

Human information processing is the way in which information gained through perception is turned into an action (or reaction). It is important for Marines to understand the capabilities and limitations of human information processing to become more effective observers of their environments. Humans process information by learning from past experiences (including training) and analyzing information for use in making decisions.
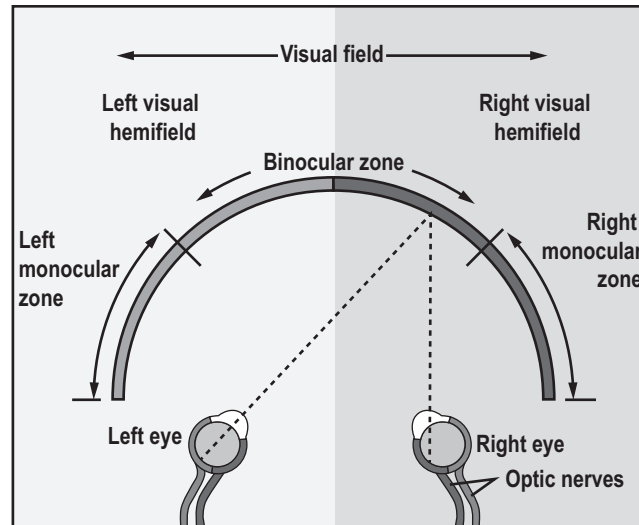
Figure 8-2. Binocular and Monocular Vision.

Bottom-up processing involves receiving data through the sensory systems, analyzing the features, and identifying patterns. Top-down processing is way contextual effects influence what is perceived. Cognitive perception, which is illustrated in figure 8-3, is the incorporation of the information perceived (i.e., bottom-up processing) and what Marines believe they are seeing based on context (i.e., top-down processing). Contextual effects can include emotions, expectations, motivation, culture, and experiences. Marines should not allow preconceived notions of what things "should" look like to influence their ability to identify anomalies. Threats may attempt to disguise their TTP and the weapons they choose to use in such a way that they can be in plain sight, yet not be noticed. When a Marine observes indicators that could correspond to threats, they should respond accordingly and investigate.

Visual and Cognitive Illusions
When a person perceives something differently from objective reality, it is referred to as an illusion. It is common for people to be fooled by illusions because they tend to interpret things as a whole picture instead of observing the fine details. The brain groups, fills in, and combines things based on past experiences, which prevents people from perceiving differences, discontinuity, and small details. There are two main types of illusions—visual and cognitive.
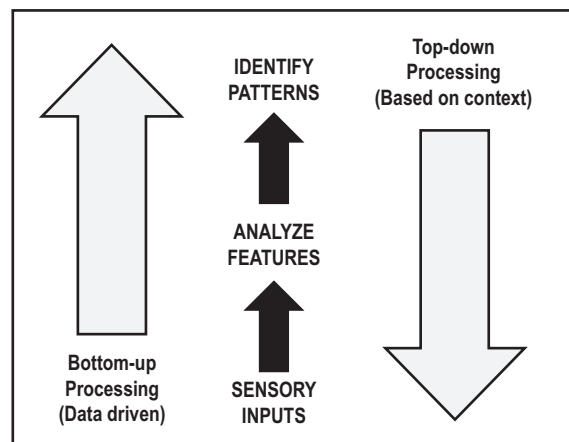
Figure 8-3. Cognitive Perception.

Visual illusions create images that are different from the objects that make them. Figure 8-4 is an example of a visual illusion where the vertical offset of the squares causes the brain to think that the horizontal lines are in a wave or curved pattern.
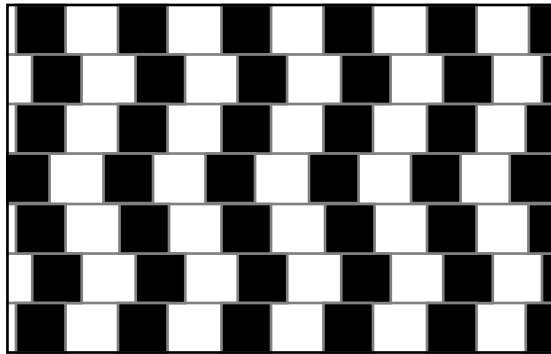
Figure 8-4. Visual Illusion.

Cognitive illusions occur when the eye and brain make unconscious inferences (i.e., false assumptions). Figure 8-5 is an example of a cognitive illusion which can look like either a picture of an old woman or a picture of a young woman with her head turned away from view.

Figure 8-5. Cognitive Illusion.

Mitigating Illusions

While Marines cannot keep from perceiving visual illusions, they can mitigate their effects and overcome the tendency to believe them. There are several important ways Marines can guard against being deceived by illusions. Marines should—

- Verify what they think they "know." Rather than simply believing what they see, they should investigate and verify that what they perceive is actually true.
- Be aware of the conditions in which optical illusions are apt to occur.
- Know the causes of illusions.
- Look at all the details.
- Not jump to conclusions before investigating.

ATTENTION, MEMORY, AND LEARNING

Attention, memory, and learning are interlinked. Humans only remember what they learn, and can only learn what they give their attention to. To be more situationally aware, observe patterns, behaviors, and anomalies, and take the most effective actions, Marines must understand how attention, memory, and learning work. The senses take in billions of bits of information every second, but only about 40 are processed by the brain. The intensity with which a person attends to the surrounding environment is determined by that person's level of interest, alertness, and anxiety.

Attention

Attention is focusing on one element of the environment while ignoring other things. The senses take in billions of items of information every second, but only about 40 are processed by the brain. The intensity with which a person attends to the surrounding environment is determined by that person's level of interest, alertness, and anxiety. The greater the interest, alertness, and anxiety, the more a person focuses on something. Human attention has its limits and can be affected in several ways, as discussed in the following paragraphs.

Limits of Attention. Marines cannot maintain focused attention continuously, nor focus on everything that happens around them. There are several limits to attention:

- Inattention blindness.
- Change blindness.
- Focused attention versus divided attention.
- Channel capacity.
- Attention span.

Inattention Blindness. Inattention blindness is the illusion a person has that they are more aware of things than they actually are. In fact, people are much less aware of their surroundings than they think they are, and often miss seeing things that are in plain sight. What is missed is often unexpected; therefore, when people are focusing attention (both visual and auditory) on one task, they are unlikely to notice something unexpected.

Change Blindness. Change blindness is when a person fails to detect changes in the environment. For example, people often do not notice obvious changes in a movie scene, or when the person in front of them is replaced by someone else right in front of their eyes. The reason for change blindness is that someone is usually focused on specific things, and they are likely to only detect changes in the things they are directly focused on.

Focused versus Divided Attention. Many people believe that people can focus on more than one thing at a time. It is common today to attempt to multi-task. However, for the human brain, attention is essentially a zero-sum game—if more attention is given to one place, object, or event, less attention is necessarily given to others. In other words, when multi-tasking, the performance of one or both tasks is worse when they are performed together, rather than separately.

Channel Capacity. Channel capacity refers to the number of pieces of information a person can take in and process under stress; each person's abilities are different. Channel capacity does not refer to the number of things a person can do at one time (i.e., attention span). It relates to short-term memory, and is the amount of information that a person can remember and process. Channel capacity is reduced when under stress and when attempting to multi-task—under these conditions, a person's channel capacity typically reduces to about three pieces of information. A way to minimize the limitations of channel capacity is to train and learn through sequencing, which assists in enabling actions to become automatic.

Attention Span. Attention span refers to the amount of time that a person can concentrate on a task without becoming distracted. Most people's attention spans are fairly short, and under normal conditions, most people cannot sustain their attention for more than 20 minutes without having to take a break.

Overcoming Limitations in Attention. There are a few ways that a Marine can mitigate or overcome limitations in perception and attention:

- *Expect the unexpected*. Marines should anticipate that something will be missed, or that something unexpected may occur; therefore, they will be more aware and less likely to miss unexpected events. Devoting full attention to the unexpected is not a cure-all, however. Marines have limited attention resources, and devoting some attention to unexpected events means that they have less attention for primary tactical tasks.
- *Check again*. To reduce the effects of inattention blindness, a Marine can deliberately reexamine the same objects and environment with an eye toward the unexpected. Marines should not assume they know what they are looking at.
- *Study the objects and events most dangerous to miss*. Expertise and experience helps Marines notice unexpected events, but only when the event happens in the context of their expertise. Marines should become experts at recognizing indicators of explosive hazards and other common battlefield threats. They cannot look for what they do not know about.

Memory
Memory and learning are interrelated. To learn things, Marines must train themselves to remember them accurately.

Perceptual Sets (File Folders). The term perceptual sets can be thought of as a "mental file folder" of information stored in memory which is based upon previous knowledge and experiences about objects, events, and actions. These file folders exist to operate in a top-down manner to create biases for specific actions. Training is directly related to how quickly and easily information in perceptual sets can be retrieved. Inefficient training, singularly focused training, or lack of training can create corrupt file folders, which can lead to incorrect actions.

With proper focused experience, the perceptual sets become a script for a Marine's individual actions and create the tactical shortcuts which drive decisions, which becomes the bias for action.

Sequencing. Sequencing is a type of long-term memory, also called motor or muscle memory. This means that a Marine who has been trained or has performed a task many times is no longer

forced to think about it in order to do it. Marines practice immediate action drills to build sequencing memory (i.e., motor/muscle memory). By making a task procedural, Marines do not have to devote their attention to accomplishing it, allowing them to focus attention on other matters while still accomplishing the task.

Short-Term Memory. The capacity of people's short-term memory is very limited. The maximum number of items that a normal person can remember without error is about seven. However, short-term memory is best when grouping items into groups of three; this is effective for long-term memory, as well (e.g., 911, stop-drop-roll, and tap-rack-bang).

Long-Term Memory. Long-term memory is organized in the brain in packets of knowledge (i.e., file folders). These file folders keep knowledge on a particular topic stored in the same place, which helps people to make logical conclusions based on limited information and to have logical expectations about what should be found when encountering something.

Memory-Emotion Link. Emotional arousal often leads to stronger memories. The emotion and memory link refers to associating an emotional response with something that is learned. If Marines make strong enough emotion and memory links during training, they will instinctively refer to that training during periods of high stress. Whenever individuals have an emotional tie to an event, object, person, or other information, it is easily remembered because it involves both the more instinctive or emotional parts of the brain (the limbic system) and the more rational parts of the brain (the cerebral cortex). The emotional responses tied to these memories can be strong, and can be either positive or negative.

Learning

Humans acquire knowledge through learning. There are many theories on learning and human cognitive processes, but the widespread belief is that humans learn from two types of knowledge—tacit and explicit.

Tacit Knowledge. Tacit knowledge is knowledge learned through experience without being taught, without intentionally trying to learn it, without being aware that learning is taking place, and in such a way that what is learned is difficult to express. Tacit knowledge does not take up much of a person's attention, and can lead to learning complex tasks more easily. Tacit knowledge is unwritten, unspoken, and contained in a large mental database of knowledge by practically every normal human being. It is based on human emotions, experiences, insight, intuition, observations, and internalized information. Tacit knowledge is integral to human consciousness, is constructed largely through association with other people, and requires joint or shared experiences and activities to be imparted from one person to another. Tacit knowledge forms the foundation of explicit knowledge, and constitutes the bulk of the knowledge base.

Explicit Knowledge. Explicit knowledge involves the conscious recollection of information. This type of knowledge can be easily explained and expressed as words in combat reports, statistics, numbers, and codes, and is easy to store and distribute. This is generally how people organize knowledge about the world.

OBSERVATION METHODOLOGY

Marines must understand both the physiological and psychological requirements for effective observation to become truly effective observers of the environment. Observation is a dynamic process that continually evolves as the tactical situation and the environment change, whether positively or negatively.

Principles of Observation

Observation means to acquire and record specific information that is relevant to the perception of details regarding persons, objects, places, and events. This utilizes each of the observer's five senses, but relies most heavily on sight and hearing. The purpose of observation is to gather facts and provide information for a specific reason. Information gathered by an individual Marine is reported, analyzed, and processed for use by the unit or HHQ commander. Observation utilizes a procedure identified as the "six R's"—realize, recognize, record, recall, respond, and reassess.

This process is described as follows:

- *Realize*. This means to realize what is to be accomplished, such as the goal or mission.
- *Recognize*. This means to recognize the importance of the task and the risk or effort involved.
- *Record*. This means to record (i.e., to save and be able to recall) what is observed. Usually, the observer has mechanical aids, such as writing utensils, logbooks, sketch kits, tape recordings, and cameras to aid in recording events. However, the most readily accessible method is memory. The ability to record, retain, and recall depends upon the observer's mental capacity, alertness, and ability to recognize what is essential to record. Additional factors that affect recording include the following:
  - The amount of training and practice in observation that the observer has.
  - The degree of skill the observer has gained through experience.
  - The similarity of previous incidents.
  - The time interval between observing and recording.
  - The observer's ability to understand or convey messages through oral or other forms of communication.
  - The preconceptions that shape what the observer perceives.
  - Subsequent events that shape what the observer remembers.
- *Recall*. This means to recall the most important details required for identification or assessment.
- *Respond*. This means to respond appropriately based on the assessment of the situation. The response is the observer's action based on the information obtained. It may be as simple as recording events in a logbook, communicating to others, or firing a well-aimed shot.
- *Reassess*. This means to reassess by critically analyzing the goal or mission, the information gathered, the action taken, and the results.

Why Objects are Seen

There are nine elements of visual perception that allow Marines to detect anomalies when observing their environment. An observer may identify objects by their—

- Line, edge, and outline.
- Contrast or value.
- Color.
- Shape.
- Texture.
- Light (reflecting, sunlight, and shadow).
- Movement.
- Rhythm and flow.
- Positive and negative space.

Line, Edge, and Outline. Lines, edges, and outlines refer to a boundary, border, spatial location, separation, or distinction. Everything—particularly man-made items—has a line or edge to it that leads the observer to distinguish the outline of an object. The human eye picks up lines, edges, and outlines very easily. An untrained Marine may see a line or edge while a trained Marine sees an outline. Any object silhouetted against a contrasting background is conspicuous. Any smooth, flat background—such as water, a field, or (best of all) the sky—will cause an object to become well delineated. However, special care must be taken when searching areas with an uneven background, as it is more difficult to detect the lines or silhouette of an object against it.

Contrast or Value. Contrast is a difference—especially a strong dissimilarity—between entities or objects compared. Value refers to the tone of an object in terms of lightness or darkness of color. An example of extreme contrast is black on white, as on the targets Marines fire upon at the known distance rifle range, which allow shooters to distinguish the center of the target by the contrasting values of the colors.

Color. Color can assist in defining what an object is by the quality or intensity of light that reflects off it or is emitted from it. Colors can provide contrast, which makes objects stand out. The greater the contrasting color, the more visible the object becomes. This is especially true when the color is not natural for the area. Ideally, camouflage uses colors that are difficult to determine exactly. Color alone is not usually used to identify an object, but it is often an aid in locating it.

Shape. When someone perceives an outline, it becomes a shape. The human eye readily picks up shapes, especially of other humans or potential threats (e.g., a rifle). Some objects can be recognized instantly by their shape, particularly if they contrast with their backgrounds. Man-made objects, which have geometric shapes, are not typically found in nature.

Texture. Texture is the distinctive physical composition or structure of something, especially with respect to the size, shape, and arrangements of its parts, appearance, and feel of a surface. While a tank may be camouflaged, it still maintains a texture that distinguishes it from other items in the environment. Texture has a baseline. An object with a smooth surface reflects light and becomes more obvious than an object with a rough surface that casts shadows on itself. An extremely

smooth object becomes shiny. If an object has a surface that contrasts with its surroundings, it becomes conspicuous and stands out from other items around it.

Light (Reflecting, Sunlight, and Shadow). Light affects the contrast and value of colors. An example of this can be found in nature with some animals. Some animals have a dark back and light underbelly. Sunlight on the dark back and the shadows cast from above darkens the lighter underbelly near the ground, making the animal appear less three-dimensional. Also, flat surfaces reflect light, while rough surfaces absorb it. Examples of this can be seen in reflections from goggles, vehicle windshields, wristwatches, and optical devices. These reflections can be seen over a mile away from the source. Any shine will attract an observer's attention.

Furthermore, an object or person in bright sunlight casts a shadow that can give away their presence, which may be more revealing than the element itself. Shadows look especially black where light is excessively bright, and this extreme contrast may attract an observer's attention because they cannot adjust to both areas simultaneously.

Movement. Movement is one of the most noticeable disturbances that can be seen in a baseline. The human eye is strongly attracted to any movement—it can detect another human or animal within seconds by watching the movement of an appendage. The movement that is observed can be either physical or visual. Observing physical movement means to directly see the subject moving. Physical movement is readily detectable. Observing visual movement means to indirectly observe the subject through the movement of objects around it. For example, a Marine could observe moving vegetation that indicates the subject's presence. The lack of movement can create an anomaly in the baseline if movement is the norm. An example of this may be the absence of women and children in a market that is normally busy. Even when all other indicators are absent, movement can give a position away. A stationary object may be impossible to see and a slow-moving object difficult to detect, but a quick or jerky movement is more easily seen. Movement seldom reveals the identity of an object, but is the most common reason a threat's position is revealed.

Rhythm and Flow. Rhythm and flow refers to common recurring patterns that appear naturally within the environment. While observing an area, Marines look for anomalies that are inconsistent with the natural conditions—areas that are disruptions in the rhythm and flow.

For example, a Marine making a detailed observation of an area notes that all the grass on a nearby slope is the same height, color, and texture, except for an area next to a rock. All the grass in the area seems to sway and move with the breezes across the slope, except for the area next to the rock. Recognizing this anomaly to the rhythm and flow, the Marine takes additional time to scrutinize the area to ensure it is not something dangerous, such as a camouflaged sniper. Disruptions in the rhythm and flow tie directly into how objects are seen by their lines, edges, outline, shape, contrast, color, texture, light, and movement.

Positive Space. Positive space is an area of observation that takes up mass (i.e., solid objects), such as buildings, trees, signs, or vehicles. A Marine cannot typically see through positive space. The human eye is attracted to positive space, and naturally moves from positive space to positive space. Most positive spaces have vertical patterns. One example of positive space is a tree line—the eyes are attracted to trunks, canopies, and prominent branches. It is important to remember

that unlike man-made objects, which frequently use equal spacing, nature never places objects in regular, equally spaced patterns.

Negative Space. This is the space between positive spaces, the area of shadow and background that an untrained observer often overlooks. This is the "nothing" that the human eye subconsciously does not recognize or consider. Good camouflage resembles negative space vice positive space. Negative space usually has horizontal lines or patterns, such as the shadows cast along the ground between vertical objects (e.g., buildings). When observing, a Marine must observe the negative spaces as well. Both friendly and enemy forces want to move or maneuver in negative spaces when possible, since they are more easily overlooked and less likely to be identified.

OBSERVATION TECHNIQUES

The observation technique selected by a Marine depends on several factors. These include the Marine's skill in observation, the tactical situation, the observer's position relative to threats (i.e., in positive or negative space), the capabilities of the optics available for use, and the time available to observe. Marines employed as observers must balance the requirements for observation against tactical requirements and the capabilities of their optics. Observation techniques include the hasty search and the detailed search.

Hasty Search
A hasty search is used when an observer initially moves into a location, or when time is limited and tactical actions must progress quickly. A Marine conducts a hasty search by scanning for approximately ten seconds, looking for threats by making quick glances at specific points, terrain features, or other areas that could conceal a threat (focusing on both positive and negative space). Marines should refrain from sweeping their eyes across the terrain in one continuous movement, as it may prevent them from detecting motion and cause them to miss smaller details. The hasty search should begin by viewing the area closest to their own position first, since it could pose the most immediate threat. The search then expands farther out until the entire area has been effectively searched. The hasty search is effective because the eyes are sensitive to the slightest movement, and are focused on specific points, which increases the degree of sensitivity. When Marines see or suspect a potential threat, they use optics to gain a more detailed view of the area (see figure 8-6).

The following should be considered when conducting a hasty search:

- From years of learning to read a language by scanning from the left to the right side of a page, the brain becomes conditioned to skip details. Therefore, surroundings should be scanned from right to left to avoid missing details. Doing so allows the brain to identify details in the environment that may otherwise be missed if observing from left to right.
- Marines makes their searches either unaided (i.e., naked eye) or with optics, making quick overlapping glances from right to left at specific points throughout the area, not by viewing the terrain in one continuous panoramic sweep. Marines should pay attention to their peripheral vision to detect motion.
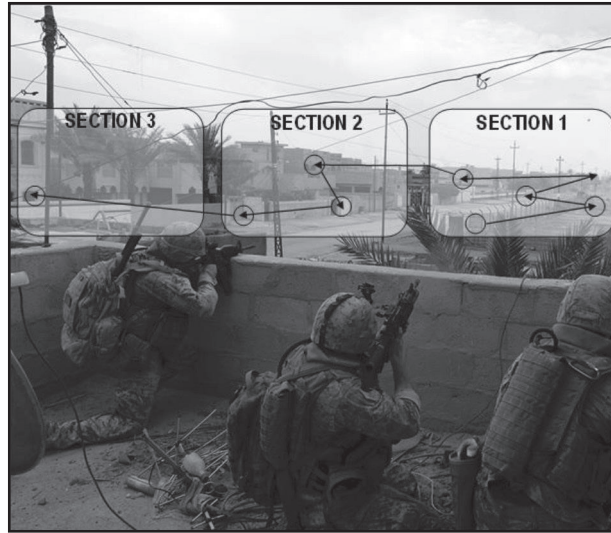
Figure 8-6. Hasty Search Technique—Right to Left Scan.

- Binoculars should be used in this type of search instead of a higher-powered optic, because they afford the observer with a wider field of view and allow them to cover a larger area in a shorter period of time.
- The hasty search is meant to be an immediate search of the area. The Marine must therefore immediately prioritize threats or areas from which threats have the potential to appear and search the most dangerous areas first, then moving to less threatening areas. The most dangerous areas should always be searched first.

Detailed Search

After the hasty search, the Marine should conduct a detailed search using the overlapping strip method. Since the area nearest to them normally offers the greatest danger, the search should begin there. The Marine systematically searches the terrain from the right flank in a 180-degree arc up to 50 meters deep. After reaching the left flank, they search the next 50-m area from left to right. The search should be in overlapping strips of at least ten meters to ensure total coverage of the area. The search should cover as far out as the Marine can see, always including areas of interest that attracted the observer during the hasty search. Refer to figure 8-7.

The following should be considered by Marines when conducting detailed searches:

- Optics used should be stable and supported.
- One of the dangers of detailed searches is "focus lock," where Marines become fixated on an object. It is important to maintain peripheral vision to prevent this.
- When a threat is detected, a transition to a higher power optic should be made, if available.
- Obstacles to observation such as bushes and shadows may conceal a threat position.

Marines should "burn" through these obstacles by focusing on a part of the object, such as the edge of the bush or its shadow, and adjusting focus until the obstacle becomes blurry. This provides a clearer picture of what is beyond the obstacle.
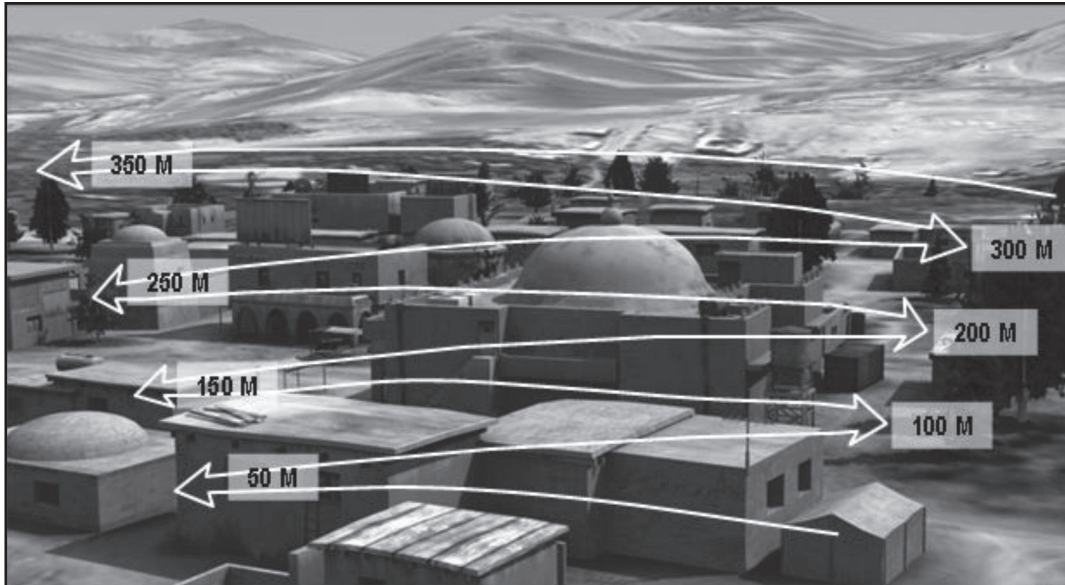
Figure 8-7. Detailed Search Technique.

In an urban environment, an observer may only be able to see through a small crack or hole in a wall. By placing one of the binoculars' barrels up to the hole, the observer can see the entire area.

Maintaining Observation

When Marines must observe an area for longer periods from a stationary position, they must strive to memorize as much of the area as possible. Marines should make mental notes (i.e., perceptual sets or file folders) of prominent terrain features (i.e., positive space) and other areas that may offer cover and concealment (i.e., negative space) for the threat. This way, the Marine becomes familiar with the terrain as it is searched. These areas become the key points of interest for subsequent hasty searches. This cycle of a hasty search followed by a detailed search should be repeated every 15-20 minutes, depending on the terrain and the area of responsibility. Repetition allows Marines to become accustomed to the area and to look closer at various points with each consecutive pass over the area. After the initial searches, Marines should view the area using a combination of both hasty and detailed searches.

Marines should alternate the task of observing the area between observers approximately every 30 minutes. When observing, Marines should keep the movement of their heads and bodies to a minimum to avoid calling attention to their position. They should not expose their heads any higher than is necessary to see the area being observed. After completing the detailed search, Marines maintain observation using a method similar to a hasty search. The Marine glances quickly at various points throughout the entire area and focuses their eyes on specific features that they noted during the detailed search. While maintaining observation for a period of time, Marines should devise a set sequence for searching to ensure coverage of all terrain. Since it is possible that a hasty search may fail to detect a threat, Marines should periodically repeat a detailed search. Due to the constantly changing positions and conditions of the clouds and sun, continually changing sunlight is a factor in observation. Marines should always be ready to watch the changing contrast and shadows and note them mentally. An area first believed to hold no threat may prove otherwise when the light changes. When the sun is to a Marine's back, light will reflect from threat optical devices. However, when the light is to the front, the threat can see the light

reflected from the observer's optical devices. It is also more tiring for Marines to observe when the light shines in their eyes. Leaders should arrange for relief observers more frequently when facing into the sunlight, if possible. If not, the use of some type of shading will help cut down on the amount of light coming into the eyes.

OBSERVATION IN LIMITED-VISIBILITY CONDITIONS

Limited-visibility conditions can occur due to excessive cloud cover, precipitation (i.e., rain or snow), fog, smoke, or nighttime. Understanding the considerations and methods that may be used to reduce the effects of limited visibility allow a Marine to efficiently observe the environment in these conditions.

Considerations

Limited-visibility conditions can impair a Marine's ability to observe the environment. Factors that affect a Marine's ability to observe in limited-visibility conditions include:

- *Physical health of the observer*. Deficiencies in a Marine's physiological well-being can impair effectiveness. Examples include:
    - A reduced level of vitamin A can impair night vision (however, excessive consumption of vitamin A does not increase night vision).
    - Illnesses, fatigue, headaches, and the use of narcotics, tobacco, and alcohol can reduce night vision.
- *Darkness adaptation*. Any exposure to bright light impairs night vision and necessitates taking time to re-adapt to darkness. In cases where Marines depart on missions during darkness, it is recommended that they wear sunglasses or darkened goggles in lighted areas prior to their departure. Since darkness blots out detail and color, Marines must compensate by learning to recognize objects and bodies by their outlines alone.
- *Twilight*. Marines should be extremely cautious during twilight, since this is the time that induces a false sense of security. For the same reason, the threat is prone to carelessness and is more likely to expose themselves. The times of BMNT and EENT vary from season to season.

Methods

Understanding methods for contending with limited visibility allows Marines to observe the environment most effectively in these conditions. Marines must understand the capabilities of the own eyes, as well as the capabilities and limitations of their optics.

Utilizing Off-Center Vision. Off-center vision is the best method of observing at night. This technique allows the observer to focus attention on an object without directly looking at it. An object under direct gaze in dim light blurs and appears to change, sometimes fading out totally. However, if the eyes are focused at different points around the object (six to ten degrees away from it), peripheral vision provides a true picture of the object. This is because the portion of the eye that functions in reduced light is around the outside of the retina.

Employing Optical Devices. Due to the specific capabilities and limitations of each type of optics, Marines must use their optics with a combined arms approach. On either a patrol or an observation post, Marines must integrate a variety of optical devices to complement the capabilities of each one. For example, a thermal optic could be used first to identify that a vehicle or people are in the area, while NVDs are used to identify if the vehicle or people are friend or foe. As another example, during daylight, a Marine could identify a potential suicide bomber from a distance using a rifle optic, then use a thermal device to see if they are giving off an irregular body heat signature. Just as Marines train to use different weapon systems to create a combined arms attack, they should learn how to combine their optics to close the seams and gaps and achieve more in-depth observation of the environment. This includes all night, daylight, and thermal devices. The larger systems include antiarmor system optics, fixed-wing or rotary- wing aviation, UASs, ground-based operational surveillance systems, and light and heavy armored vehicle optics.

Daylight Optical Devices. These include all daytime devices such as rifle combat optics, spotting scopes, and binoculars. These are the preferred optics from BMNT to EENT. They do not require batteries, and therefore have an unlimited duration of use. They are capable of viewing objects in depth and "burning" through brush and shadows. The primary drawback of daylight optical devices is that they have limited capabilities in low-light conditions.

Night Vision Devices. Night vision devices operate by amplifying the ambient light in the environment. At night, NVDs have a greater capability to identify friend or foe than other options. They typically have a longer battery life than cooled thermal devices, and are not affected by fluctuations in the ambient temperature. Night vision devices are very reliant on ambient light. They can be heavily impacted during times of low lunar light, meteorological conditions such as cloud cover, or environmental factors such as jungle canopy. Night vision devices do not provide the Marines the ability to see in-depth, and constrict a Marine's peripheral vision. They are also subject to "white-out" due to rapid fluctuations in light. Additionally, most individual issued NVDs have limited range capabilities.

Thermal Optical Devices. Thermal devices operate by detecting and amplifying infrared signatures in the environment. Thermal optical devices are unique in that they can be utilized during either day or night operations. Many ground and vehicle thermal optical devices are capable of alternating between white hot and black hot, thus allowing for increased flexibility in identifying and determining shape and heat imbalances that may indicate threats.

Thermal optical devices can detect objects at a greater range than NVDs, but lack NVDs' capabilities to discern friend from foe. They can acquire targets through vegetation, smoke, and dust, as well as through clothing to a limited extent. Thermal devices have the greatest ability out of the range of optical devices to detect persons and vehicles in the natural environment.

Previous generations of thermal devices were typically not very portable due to size, weight and power requirements; however, as technology matures, these devices continue to see a reduction in size and weight while maintaining the same operational capability as previously larger models. They can occasionally be affected by weather, such as precipitation. They can also be affected by a natural phenomenon called the "thermal crossover period," which occurs twice daily. During these periods, ambient air temperature conditions are such that the infrared signatures of different objects are almost indistinguishable. The loss of contrast between objects occurs because their

signatures do not appear different enough to register with the device. Marines require more extensive training to employ these systems effectively.

RECORDING AND REPORTING INFORMATION

When observing an area for extended periods of time, it is crucial that Marines record the information that they gather for later reporting and processing. Typically, an observer uses an observation log and observation sketch to record such information.

Observation Log
The observation log is a written, chronological record of all activities and events that take place in a Marine's area. It should be started immediately upon establishing a position or observation post, and is used in conjunction with military sketches and range cards. This combination gives commanders and intelligence personnel information about the appearance of the area, as well as an accurate record of the activity in the area. At minimum, the information recorded in the observation log should include—

- The grid coordinates of the observation post.
- The observation post's name and/or unit call sign.
- The date and time of observation and visibility.
- The map sheets used.
- The events that take place.
- The actions taken.

Reporting Format
While units may develop or modify their own specific reporting formats to meet their requirements, the general acronym used for reporting threats is SALUTE. This may also be further abbreviated to SALT (i.e., size, activity, location, and time), which is commonly used in environments in which threats are indistinguishable from the civil populace, such as insurgents who do not typically wear readily identifiable uniforms.

Military Sketches and Cameras
The observer uses a military sketch to record information about a general area, terrain features, or man-made structures that is not shown on a map or imagery. These sketches provide higher commands or intelligence sections a detailed, on-the-ground view of an area or object that is otherwise unobtainable. Due to their portability and ease of data transfer to other devices, cameras have become the primary choice for quickly recording the unique characteristics of an area. The photographs that they take can be rapidly transferred over communications devices (without having to physically deliver them), printed, or imported for use in operations and intelligence briefs to clarify information and provide detail.

Reporting Information

The Marine conducting observation must determine when it is appropriate to report the information that is recorded. This is based on three factors:

- Is the Marine observing something related to an intelligence requirement which must be immediately reported?
- Is the information that the Marine is receiving of immediate use to the tactical situation?
- Will it immediately prevent an event or provide friendly forces a tactical advantage over the threat?

While it is important to report pertinent information, excessive information can overload and confuse higher and adjacent units. It is critical that Marines distinguish between fact and opinion when reporting. It is very rare that an observer can ever see all the facts of what they are seeing. Marines must report the facts first, then report their own opinions of what they are observing. If information is second hand, this should also be distinguished in the report. When reporting (or receiving) information, Marines should consider the impact of who the information may be critical to by using the "HASS principle," which stands for higher, adjacent, supporting, and security. This principle can apply both internally and externally. A Marine does not always report up the chain of command, but must be able to determine if the information is of value to other individuals or units in the area. Central to this determination is Marines questioning themselves—

- What do I know? (i.e., fact, assumption, or opinion).
- Who needs to know it? (i.e., element leaders, HHQ, adjacent, supporting, or security units).
- Have I told them? (i.e., timeliness of reporting, reporting format used, and supporting.

CHAPTER 9.
TRACKING

PURPOSE AND EMPLOYMENT

Tracking can be employed during offensive, defensive, and stability activities in any type of military operation. Effective tracking requires well-trained, cohesive teams that possess high situational awareness, common sense, tactical patience, and—when necessary—aggression.

Purpose
Tracking is a directed and detailed activity to collect information on the activities of enemy forces and other threats. The information collected from tracking can be exceptionally useful in feeding the intelligence cycle, providing indicators and warnings, uncovering threat TTP, and developing the commander's understanding of the operational environment. Tracking is both an individual and team effort. This requires commanders to understand the capabilities and limitations of tracking, paired with an equally clear understanding of the intelligence requirements necessary to drive tracking efforts.

Employment
Tracking is physically demanding and requires a high level of physical fitness and endurance. It also requires Marines to think critically and make assumptions using facts, intuition, logic, and reason. Tracking tasks are normally assigned to small units called tracking teams within infantry squads; tracking tasks are normally performed during combat or reconnaissance patrols. The size and composition of a tracking team is driven by the unit commander's intelligence requirements and the limitations of METT-T. Tracking can be employed in a variety of tactical situations. These situations may include the following:

- Pursue to gain and maintain contact with a fleeing enemy after an initial contact.
- Assist in locating missing Marines, conducting search and rescue tasks, or recovering wounded personnel.
- Assist in locating arms caches, firing points of origin, and IED emplacement sites.
- Participate in border security or area denial activities by identifying threat infiltration routes and movement corridors and selecting the best locations to emplace sensors.
- Assist in site exploitation and analyzing an incident site after an attack, such as an IED attack.
- Assist in countersurveillance by identifying and assessing areas of threat activity, anchor points, and natural lines of drift, as well as assisting authorities in counter-smuggling operations.
- Assist in understanding a threat and how it may react, to drive them into ambushes and prepared positions.

TRACKING TERMS

Due the unique nature of tracking, tracking teams use unique terms. To understand the following subjects, the following tracking terms are provided:

- *Spoor*. A set of tracks or observable evidence that reveals an identifiable trail of a quarry's movement through an area. The term spoor is interchangeable with "tracks" or "set of prints."
- *Follow-up*. A follow-up is the actual task of tracking and following the spoor or sign left by a threat. A follow-up may be employed on its own, but is typically performed as part of a larger combat or reconnaissance patrol.
- *Tracking team*. A tracking team is adaptable, but typically consists of at least four or more Marines—a tracker, two flank trackers, and a team leader or rear security tracker. The size of the tracking team may be larger based on the discretion of the commander, the tactical situation, and whether the unit is part of a larger combat or reconnaissance patrol.
- *Lost spoor procedures*. A systematic and sequential set of procedures designed to relocate the spoor when it is lost. Commencing with simple procedures conducted by the tracker, lost spoor procedures escalate into ever-increasing search patterns utilizing the entire team.
- *Quarry*. The persons or unit being actively tracked by the tracking team.
- *Active tracking*. This is conducting a follow-up to locate and close with the quarry.
- *Passive tracking*. This is conducting a follow-up to gather evidence or information. The quarry may be long gone, in custody, or being pursued by another tracking team. A passive track is usually conducted after an event, such as an attack or ambush.
- *Time-distance gap*. This is the difference in both time and distance between the tracking team and the quarry.
- *Confirmatory evidence*. This is tracks or other confirmatory evidence that were indisputably left by the quarry.
- *Indicators*. Indicators are disturbances or evidence that lead the tracking team to a reasonable conclusion that specific actions have taken place.
- *Initial commencement point*. The initial commencement point is the exact location where the tracking team begins the follow-up. This does not necessarily have to be at the exact site of an incident, and may be a location where the tracking team can best identify the track.
- *Contamination*. This may be tracks or other disturbances made by anyone or anything other than the quarry that obscures or destroys the quarry's spoor. Examples include other people's tracks, vehicle tracks, and animal tracks.
- *Track line*. This is the continuous line of observable clues (i.e., indicators) visible to the tracker, indicating the path and direction of the quarry.
- *Track trap*. Track traps are natural or man-made areas that are likely to yield spoor.
- *Incident site*. An incident site is usually the location of enemy contact with friendly forces, whether the contact visual or physical, such as the site of an ambush, IED attack or sighting, or indirect fire point of origin. Incident sites may also include munitions caches, IED construction facilities, crime scenes, prepared attack positions, or abandoned camps. These sites are typically where a track begins; spoor may or may not be readily identifiable there.

THE TRACKING TEAM

A four-member team is typically employed (based upon an infantry squad's fire team) for tracking (i.e., conducting a follow-up). A tracking team consists of a tracker, two flankers, and a team leader who provides rear security. Depending on the size of the unit a tracking team supports, it may be task-organized with additional Marines if additional personnel are available, including cover and rear security team members.

The tracking team gathers information by analyzing the evidence left by a threat on the natural environment, which allows Marines to develop a better understanding of a threat's size, activities, location, composition, equipment, and intent. The team pursues a threat, referred to as quarry, by reading the natural terrain and identifying disturbances that quarry creates in nature. Marines can track their quarry using their intuition, understanding of terrain, and knowledge of the ways human beings move in an environment to enable them to interpret the environment more effectively and efficiently.

The purpose of the tracking team is to follow and collect information about the indicators (referred to in tracking language as spoor) left by the quarry which may provide key information that can be exploited for tactical advantage. An effective tracking team can assist the unit in closing the time-distance gap between the team and the quarry by uncovering intelligence requirements that develop the "track picture" that tells the story of a quarry or a threat and their likely intentions. Information collected on the location, number, direction, age, type, and any amplifying data (i.e., LNDATA) is recorded in the tracking report, which is a modified SALUTE report. When appropriate, supplemental data is also included (e.g., pictures, maps, sketches, or items collected) to provide additional information. Collecting this information assists the unit's HHQ in answering unknown questions about the threat, gaining a deeper understanding of the operational environment, and developing additional intelligence requirements needed for planning future operations.

The task of tracking is not simply a function conducted by an individual Marine following a track. Marines must work in tracking teams to spread-load the responsibilities and track more effectively and efficiently. The size and configuration of a tracking team is adaptable to the required tasks and the tactical situation. An infantry fire team is ideally suited to serve as a basic tracking team; each rifle squad should have at least one fire team trained to serve as a tracking team. All members of the tracking team must know how to track, and should be cross- trained in the roles and responsibilities of each position. This allows the tracking team to conduct lost spoor procedures and quickly regain a lost track.

Depending on the tactical situation, a tracking team may be tasked to provide its own security—especially if it is moving independently one major terrain feature ahead of the main body of a larger patrol. In some situations, the unit commander may choose to reinforce the team with additional Marines to provide it with increased security (e.g., as a machine gun team) or capability enablers (e.g., a JFO). A tracking team has a similar organization and purpose as a small reconnaissance patrol, relying on its small size and stealth.

Team Leader

The team leader is responsible for controlling the team's follow-up, including navigation, communications, ensuring proper rates of movement, and selecting unit formations. Within a rifle squad, this is normally a fire team leader. Like a patrol leader, the team leader is the only person in a tracking team who does not rotate position so they can command and control all aspects of the tracking team. The team leader must continually monitor the environmental conditions, threat situation, the team's use of terrain, and make appropriate decisions regarding employment. The team leader also protects the team's rear security, as well as the link to the supported unit.

Tracker

The tracker's sole focus is to follow the spoor left by the quarry and advise the team leader of any indicators that may affect situational awareness, or any significant changes to the tactical picture presented by the spoor.

Flank Security

Two flank security Marines move on the left and right flanks of the team. The flankers are responsible for maintaining observation and security for the team oriented in the direction of the quarry and toward their respective flank. Their primary task is to protect the tracking team from ambush; their secondary task is to assist the tracker by scanning the area ahead of the team for spoor. Third, they assist the team in performing reconnaissance, lost spoor procedures to regain the track when it is lost, and other security functions.

Rear Security

Rear security is normally provided by the team leader. When the team is reinforced, the team leader normally assigns a Marine to provide rear security.

Cover

When additional Marines are assigned to the tracking team, a Marine may be tasked with providing cover. A Marine providing cover moves behind the tracker and is responsible for protecting the tracker and team leader from ambush, as well as for assisting in searching for lost spoor. The cover Marine remains in contact with the tracker at all times. Secondary tasks may include assisting in rear or flank security, aiding the tracker in marking the last known spoor, and assisting in reconnaissance tasks.

TEN COMMON TRACKING RULES

To achieve success in tracking, it is imperative the tracking team understand and follow the ten common rules for tracking:

- The tracker sets the pace of the follow-up.
- Correctly identify the specific tracks you wish to follow.
- Mark and record the coordinates of the initial commencement point.
- Never walk on top of ground spoor.

- Never overshoot the last known spoor.
- When following aerial spoor, seek evidence that would confirm that the correct tracks are being followed.
- Always know exactly where you are.
- Always maintain visual contact with other team members.
- Always try to anticipate what the quarry will do.
- Avoid using preconceptions; never "force" a track to conform to preconceived notions of what the spoor is saying.

SPOOR

Spoor is a path or trail of observable evidence and indicators left behind that reveals a quarry's movement through the area, such as a set of tracks on the ground or a trail of litter that can be followed. The tracker and the Marines on the tracking team collect, record, and interpret these indicators, enabling them to follow and assess an individual or unit's movement, direction, and possible intentions.

Reading Spoor and Sign
The tracker follows spoor that indicate that an action occurred at a specific time and place. By comparing these indicators, the tracker obtains answers to questions that tells the story of the quarry. One step forms a word, several steps develop a sentence, a whole line of steps creates a paragraph, and then the whole story becomes a book written on the ground. This truism sums up in a few short words what trackers do when they first observe a set of tracks. The tracker scans the area to obtain a quick picture and then painstakingly starts to identify each "word" (i.e., each footprint or mark seen). As the "words" grow in sequence, the tracker starts to read the "story," an understanding of how and when things happened.

Assessing the Age of Spoor and Sign
One of the most important aspects of tracking is judging the age of the tracks to be followed. Without witnesses who observed a quarry's movement, information is difficult to ascertain. Making accurate assessments of the age and appearance of tracks is a difficult task. There are many factors which can affect the appearance of the tracks. If the tracks are of an unknown age, the tracking team must make an immediate decision as to whether a follow-up is viable or not. Older tracks have been exposed to the elements for a longer period, make it less likely for the tracking team to close the time-distance gap. Fresh tracks offer the best chance of a successful follow-up.

When the spoor and sign are fresh enough for the tracking team to be able to close on the quarry, an active track is performed. When time is not critical but there may be information to be gained about where the threat came from, when the tracks were left, what they may have been doing, and where they went, a passive track is performed. The best way a tracker can learn how to assess the age of the spoor is through constant practice; however, even experienced trackers can be wrong in their assessment. One of the most accurate techniques in learning to assess the age of spoors is to

create aging stands. Aging stands are created in controlled areas that are protected from other human interference to replicate sets of spoor and sign (e.g., footprints, damaged vegetation, fire pits, and food products) over an extended period. This allows Marines to observe how they change in appearance with the area's current weather, time, and other local factors.

When spoor is located, it is essential that Marines can accurately assess its age to calculate the time-distance gap to the quarry. When calculating the time-distance gap to the quarry based on age, Marines must ask themselves, "What were the weather conditions when the spoor was laid, and what has happened between then and now?" There are several different methods to assess the age of tracks and the time-distance gap to the quarry. The tracker can speak with witnesses (or victims) or analyze data from sensor systems when available. When assessing the age of tracks, the "two-hour" rule is used. This rule brackets the age by sets of two hours (e.g., two to four hours or 10 to 12 hours). If the tracks are determined to be older than a day, their age should be estimated using the number of days.

The season and the environment cause spoor to age differently. Differences in location and geography between desert, rain forest, jungles, mountains, and urban areas must be considered. These environments have different types of ground, including sand, loam, heavy soil, stones, or pavement that affect the appearance of ground spoor. The ambient temperature and recent precipitation, such as rain, wind, snow, and frost, also affect the spoor.

The local activity in the area can both contaminate and affect the aging of spoors. Human interaction with the environment, such as vehicular traffic, agricultural activities, domestic and wild animals, and the day-to-day human patterns of movement can affect spoors.

Weathering

Weathering is spoor breaking down when it is left to the elements of nature over time. It is primarily caused by sunlight and precipitation. Spoor that has been weathered can provide information that helps determine its relative age, even if it is degraded. Weathering can also aid or hinder a tracker. Precipitation (i.e., rain or snow) can assist trackers following spoor by providing fresh tracks to follow. However, high winds, excessive precipitation, heat, and sunlight can also erase or mask spoor entirely and halt the tracker. Other aspects and effects of weathering that a tracker should consider include:

- *How weathering affects soil, vegetation, and other indicators in the area*. Trackers cannot properly determine the age of indicators until they understand the effects that weathering has on track signs. For example, when bloodstains are fresh, they are bright red. Air and sunlight first change blood to a deep ruby red color, then to a dark brown crust when the moisture evaporates. Scuff marks on trees, roots, or bushes darken with time. Sap oozes on trees and then hardens when it contacts the air.
- *Weather greatly affects footprints*. By carefully studying the weathering process, trackers can estimate the age of prints. If particles of soil are just beginning to fall into the print, this is a sign that the print is very recent.
- *A light rain may round the edges of a print*. By remembering when the last rain occurred, the tracker can place the print into a timeframe. A heavy rain may erase all signs.

- *Tracks exiting streams may appear weathered by rain.* This could be due to water running from clothing or equipment into the tracks. This is especially true if the quarry is a small unit that exits the stream single-file, with each person depositing water into the tracks. The existence of a wet, weathered track slowly fading into a dry track indicates that the track is fresh.

- *Wind dries out tracks and blows litter, sticks, and leaves into prints*. By recalling wind activity (i.e., time, direction, and velocity), the tracker may estimate the age of the tracks. For example, the tracker may reason, "The wind is calm presently, but blew hard about an hour ago. These tracks have litter blown into them, so they must be over an hour old." However, careful study must be made to ensure that the litter was blown into the prints and not crushed into them when the prints were made.

- *Wind affects sound and odors*. If the wind is blowing down the track (toward the tracker), sounds and odors from the quarry may be carried to the tracker. If the wind is blowing up the track (away from the tracker), the tracker's odor and noise may travel away from the tracker toward the quarry. Trackers can determine wind direction by dropping a handful of dust or dried grass from shoulder height. By pointing in the same direction that the wind is blowing, the tracker can localize sounds by cupping the hands behind the ears and turning slowly. When sounds are loudest, the tracker is facing the origin. In calm wind conditions, air currents that may be too light to detect can carry sounds to the tracker. Air cools in the evening and moves downhill toward valleys. If the tracker is moving uphill late in the day or night, air currents will probably be moving toward the team, even if no other wind is blowing. As the morning sun warms the air in the valleys, it moves uphill. The tracking team must consider these factors when plotting patrol routes or other operations. If wind is kept in the faces of the tracking team, sounds and odors will be carried toward them from the objective or quarry being tracked.

How Tracks are Seen

Marines with well-trained observation skills can greatly increase a tracking team's ability to identify tracks. Tracks are identified by their—

- Outline.
- Shape.
- Color.
- Texture.
- Shine.
- Rhythm.

Outline. The outline is the outer limits or edges of the track. These unnatural sharp edges do not exist in nature. While the entire outline will often not be present, a partial outline will still contain these unnatural edges.

Shape. The shape of something that is obviously man-made is recognizable. This is typically the prints left by footwear, but could also include equipment. These shapes stand out because they are unnatural to the environment.

Color. As the quarry walks across an area, the disturbance of the natural area can cause the area to have a slightly different color. Unnatural color changes can be caused by variations and disturbances in moisture, vegetation, and soil.

Texture. The natural smoothness or roughness of an area, such as a print with fine edges, is affected by the quarry's movement.

Shine. Disturbing the natural state of both the ground and vegetation can cause light to reflect differently from it. This difference from the natural surroundings (i.e., its baseline) can be identified by a well-trained tracker.

Rhythm. Nature has its own rhythm, but usually lacks regularity. Something in nature that is spaced at regular intervals should stand out as an anomaly from the natural state of the environment, such as a different color or type of vegetation.

Effects of Light

Trackers need light to follow spoor. While the most effective time to track is during daylight hours, moonlight, ambient light, or artificial light can be as good as bright sunlight under certain conditions. The tracker must be able to maximize the available light and manipulate the light source to optimal advantage to obtain the best view of the track and avoid exposing themselves to the threat. Figure 9-1 illustrates the effects of the angle of the sun on a boot print, and which portions are most noticeable at certain times.
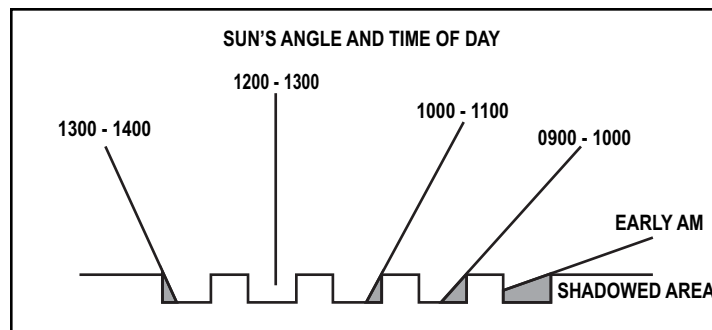
Figure 9-1. Sun's Angle Effects on a Boot Tread Cross-Section.

Ideally, trackers position themselves so that the spoor is between themselves and the light source. The shadows created by the spoor present the clearest picture for the tracker. This is more noticeable during the early morning and late afternoon, when the shadow is maximized by the low angle of sunlight. As the sun rises in the sky and reaches its zenith, the shadows become increasingly difficult to see—the light shines directly into the spoor, washing out the shadows. This constantly changing pattern of light and shadow is known as the "time/shadow effect."

TRACKING FOOTPRINTS

Footprints are the most common and readily available sign to a tracker. Distinguishing footprints and their unique characteristics are critical to understanding the quarry.

Dynamics of a Footprint

A footprint is composed of three main elements. These elements are the primary impact point, the foot roll, and the terminal point (refer to figure 9-2, figure 9-3, figure 9-4, and figure 9-5).

Figure 9-2.
Primary Impact Point.

Figure 9-3.
Foot Roll.

Figure 9-4.
Terminal Point.

Primary Impact Point. The primary impact point is the first part of the foot to strike the ground. The heel usually the primary impact point when walking forward at a normal pace. When walking backwards, sprinting, or climbing steep terrain, the toe will be the primary impact point.

The Foot Roll. The foot roll is the sole of the foot rolling through its length of a step from rear to front. It is the rolling motion made by the foot as the weight of the body is moved over the foot, or the middle part of the foot.

The Terminal Point. The terminal point is the last part of the foot to leave the ground. The toe is normally the terminal point while walking forward at a normal pace. When walking backwards, the heel will be the terminal point.
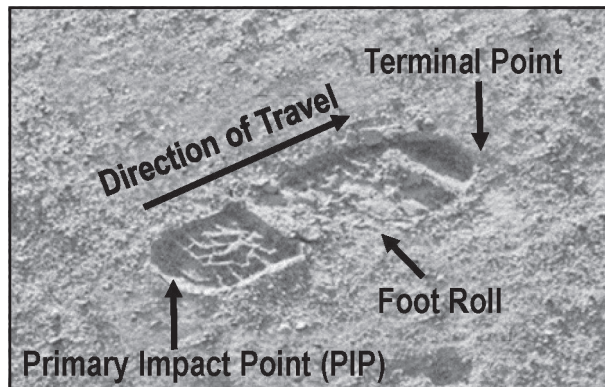
Figure 9-5. Footprint Interpretation (Three Components).

Characteristics of Human Gait

Gait is the way a person moves across the ground. This is most easily observed through the footprints a quarry leaves behind, which are composed of six observable elements:

- Stride.
- Straddle.
- Pitch angle.
- Pressure.
- Dwell time.
- Rhythm and balance.

The measurement of these characteristics change depending on the quarry's activity, speed, terrain, load, and physical condition. Analyzing these characteristics assists the tracking team in determining the quarry's intent and purpose. Only through practical application and research can a tracking team learn to identify the variations correctly. Through constant training, a tracking team will be able to determine such variables as age, gender, physical condition, physical disabilities, pace, weight, stature, mental state, whether the quarry is moving during day or night, and whether they are carrying a load, as well as to identify a quarry's attempts to hide their tracks.

Stride. The distance from one footprint to the next in the quarry's direction of movement (e.g., left foot to right foot). stride is determined by measuring the distance between primary impact points. Under normal conditions, an average human stride is approximately 30 inches (see figure 9-6).

Average Pace
30-32 inches
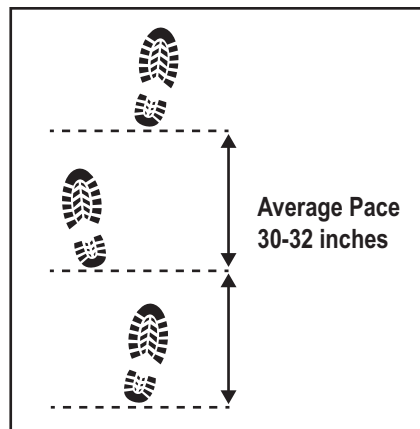
Figure 9-6. Stride and Pace.

Straddle. Straddle is the distance between the inside edges of the left and right footprints. For example, if a person is standing still with their feet close together, the straddle is the distance measured between the two feet at the closest point (see figure 9-7).
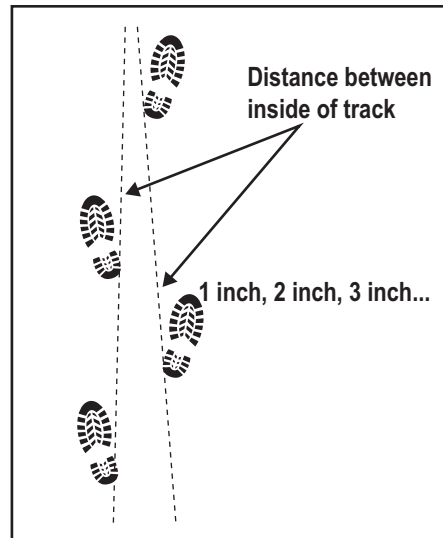
Figure 9-7. Straddle.

.***Pitch Angle.*** The pitch angle is the orientation of the foot in relation to the line of travel. A foot can pitch outward, inward (i.e., "pigeon toed"), or remain parallel to the line of travel. The pitch angle is best determined by estimating or measuring the angle of the foot in relation to the center line of travel (see figure 9-8).
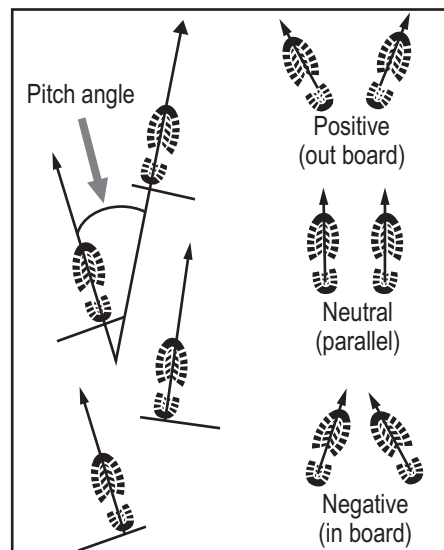
Figure 9-8. Pitch Angle.

Pressure. Pressure differences provide cues about the quarry's weight (including a load they are carrying), which can be observed in how the foot's pressure is applied to the ground. Refer to figure 9-9.
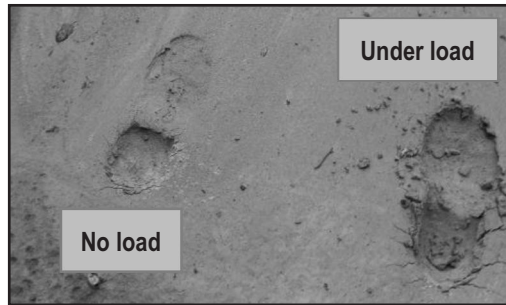
Figure 9-9. Quarry Under Differing Loads.

Dwell Time. Dwell time is the amount of time a foot is on the ground in the same spot. Dwell is affected by wind and precipitation which can age prints, making them less distinctive. Dwell can also be beneficial in determining the time and age of the print. In figure 9-10, the left print shows longer dwell time and lower pressure due to the loss of edges—appearing almost blurred. Conversely, the right print displays less dwell time and higher pressure due to its depth in the soil.
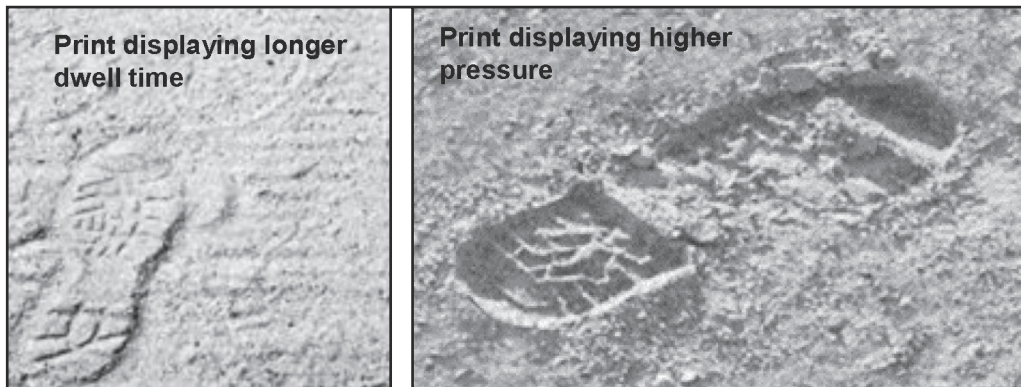
Figure 9-10. Example of Footprint Dwell.

Rhythm and Balance. Rhythm and balance refer to the consistent recurring pattern in a track line, the lack of a consistent pattern, or the interruption of an established pattern. During forward movement, good rhythm and balance signify coordinated body function and a sense of purpose and direction. Rhythm and balance are the cumulative interpretation of the characteristics of human pace (i.e., stride, straddle, pitch angle, pressure, and dwell time) and help determine a quarry's purpose. However, they must be considered along with other indicators, not by themselves. In figure 9-11, the left prints appear to be moving consistently at an even pace, whereas the prints on the right appear to be moving faster, with shorter strides, and under increased pressure (i.e., carrying a heavier load). A tracker may reasonably assume that the tracks on the left were made by a person carrying a lighter load and moving at a comfortable pace (such as a leader or a member of a security element). The track on the right may have been made by someone who was in a hurry and carrying a heavy load.

Figure 9-11. Indicators of Stride and Purpose.

Conversely, a lack of rhythm and balance signifies uncertainty, confusion, fatigue, or a lack of purpose. In figure 9-12, the stride length, straddle, and pitch angle differ, providing potential indicators of a change in the quarry's movement. This change could have happened for a variety of reasons, such as making a gear adjustment while moving or removing something from the pockets. Additionally, a lack of rhythm and balance in stride can also be an indicator of a quarry trying to walk backward to deceive trackers. When walking backward, balance becomes difficult, and may cause pronounced changes in both rhythm and balance. Examination of the print detail and heel drag helps confirm the direction of travel. This may also be seen in figure 9- 12 in the drag mark of the first print. Also, what appears to be a walking stick depression can be seen next to the second print. Taken together, these spoor could be interpreted as the quarry walking backwards with a walking stick for balance. As the quarry used the stick for balance, they stepped backward and removed it, producing spoil in the opposite direction of movement.
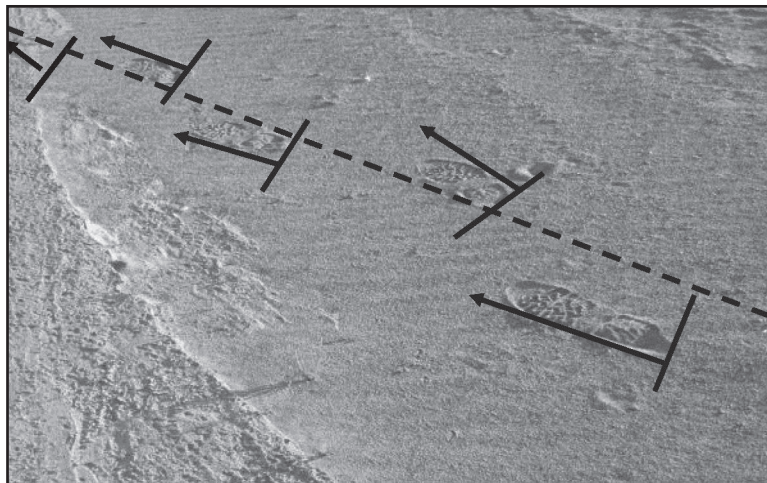
Figure 9-12. A Lack of Rhythm and Balance (or Walking Backward).

TRACKING INDICATORS (SIGNS)

Tracking indicators or signs are disturbances to the natural state of things; they can be classified as either observable or non-observable.

Observable Indicators

Observable indicators or signs are changes in the baseline or natural state of the environment that indicate a quarry has moved. Signs on the ground and terrain form track lines of continuous clues that provide the tracking team with a route to follow. They are displacements revealed when anything is moved from its original or natural resting position. An example could be a well-defined footprint in soft, moist ground. Feet and footwear leave prints that displace the soil by compression, leaving an indentation in the ground. The tracker can study this sign and determine several important facts. For example, prints made by worn footwear or bare feet may indicate a lack of proper equipment. Another example could be a trail clearing where a quarry trampled over heavy vegetation or hacked through it with a machete. These tracks are obvious, even to inexperienced trackers. Individuals in a quarry party may unconsciously break more branches as they move behind someone cutting the path. Observable indicators can also be left by people carrying heavy loads who stop to rest. In this case, prints made by box edges or heavy packs can help identify the load. When loads are set down at a rest halt or campsite, they usually flatten or crush grass and twigs. Furthermore, the lower parts of trees may show signs of displaced bark where people leaned against them. Also, a person reclining or in a prone position can flatten vegetation, potentially providing indicators of why they stopped and what their purpose was. The types of observable indicators or clues discussed below should be looked for by trackers.

Ground Spoor. Ground spoor consists of the marks and impressions that the feet (or footwear), other body parts, or equipment leave on ground surfaces. Ground spoor can be identified by the following five characteristics:

- *Regularity*. This can refer to a consistent, uniform tread pattern or the rhythm of footprints.
- *Flattening*. This refers to the impressions left on the ground by pressure from the weight of the quarry's body and equipment.
- *Transference*. This is the unintended movement of spoor from its natural location to another surface or object (e.g., foot scuff marks on fallen trees laid across the route of movement, water at a shore exit point, or muddy footprints across a parking lot).
- *Color change*. Color change may be revealed on broken surfaces, such as grass, due to the quarry's movement across or through vegetation.
- *Disturbance*. A disturbance is any change to the environment which is out of balance with the surrounding natural state. An example of this could be a freshly overturned rock which reveals darker, moist soil underneath, indicating movement from the rock's original resting position.

Aerial Spoor. Aerial spoor is damage and disturbance to vegetation from ankle to head height created by the quarry's movement through it. Foliage, moss, vines, tall grass, sticks, or rocks that are scuffed or snapped from their original position can be valuable indicators. Vines may be dragged, or dew droplets displaced. Tall grass or other vegetation will likely be bent or broken toward the direction of movement. This often results in a color change as the sunlight reflects off

the disturbed vegetation from different angles of observation. Torn spider webs may also indicate a quarry has passed. A tracking team may be able to calculate the time-distance gap between them and their quarry based on the time it takes spiders or ants to repair disturbed webs or nests. However, as different species repair webs at different rates, a tracking team should be familiar with the abilities and limitations of the variety of species in their tracking environment.

Animal Activity. Wild animals and birds that are flushed from their natural habitat are another example of displacement. The cries of birds excited by unnatural movement are indicators. In many jungles, tree-dwelling animals such as monkeys make large and loud alerts to warn against or discourage would-be predators. Changes in the normal life of insects may be signs that someone has recently passed; these signs may include disturbed bees and ant nests.

Litter. A poorly trained or undisciplined quarry is apt to leave litter as they move or when in defensive positions. These are unmistakable signs of human presence, such as chewing gum (the hardness of discarded chewing gum can help indicate the time it was left), food wrappers, sunflower seeds, ration packaging, cigarette butts, the remains of fires, and bloody bandages. Trackers must consider the weather conditions when estimating the age of litter. The recent meteorological data and dates of the last rain or strong wind can provide a basis for developing a refined timeframe. Sunlight can cause litter to fade, and precipitation flattens or washes litter away and turns paper into pulp. Exposure to weather can cause ration cans to rust—first at the opened edge, then moving toward the center. Even vacated fighting positions, regardless of how well camouflaged, are a potential source of litter.

Blood Spoor. This is blood that has dropped or splashed onto the ground from a wound, leaving a trail that can be followed. The level of blood smears and the amount of blood can indicate the position and severity of the wound. Venous bleeding is generally a darker red, and is typically found in drips and drops that subside over time and space as a wound heals. Arterial bleeding is characterized by brighter red spurts and splashes. A bullet wound through the lungs or chest produces pink and frothy blood. A bullet wound in the abdomen generates a dark red, blackish blood and a foul odor, as bile is mixed with the blood. A head wound is typically accompanied by a mix of brain matter, bone fragments, and blood.

Caution

Due to the potential for disease, blood spoor should never be touched without proper protective equipment.

Human Bodily Waste. Bodily fluids such as urine, feces, or vomit on the ground, trees, bushes, or rocks leave a stain and foul scent. This may also include any item placed in the mouth, then ejected or vomited. Human waste may be dry or damp, depending on its age. A visual observation of feces can also indicate the health of the quarry. The gender of the quarry can be determined by the pattern in which urine and feces are deposited on the ground. A male's feet will be behind a urine spoor, with the pattern flowing out from the feet in an elliptical pattern, whereas a female's urine will be between the footprints and in a circular shape or puddle. Depending on the weather conditions and climate, urine can be used to assess time by determining the dampness.

Caution

Due to the potential for disease, human bodily waste should never be touched without proper protective equipment.

Obstacles. A quarry may employ hasty explosive or non-explosive obstacles to delay trackers or warn of their approach. Indicators may consist of tripwires, disturbed ground, protruding branches across trails, metal spikes in the ground, unnatural hollows or depressions, brushed ground, and even dead animals along roadways and trails.

Non-Observable Indicators

Non-observable indicators or signs are more difficult to uncover, and rely on senses other than observation—primarily a tracker's senses of smell and hearing. These sensory triggers are just as important to the tracker as observable indicators. Non-observable indicators may include—

- Unnatural noises.
- Smell and scent.
- Intuition.

Unnatural Noises. Certain noises may indicate the quarry's presence, such as talking, whistling, loose gear rattling, metal objects clanging, and chopping noises. These can often be heard at great distances.

Smell and Scent. The ability to acquire a scent is largely dependent on wind direction, velocity, and climate conditions. The scent of body odor, insect repellent, fire, food, weapons lubricant, or dead flesh can be detected from several yards away, while cooking odors or smoke from a cigarette, pipe, or cigar can be smelled up to a thousand meters away.

Intuition. Trackers should not ignore their intuition, commonly referred to as their "sixth sense" or "gut feelings." Intuition is merely the subconscious recognition of subtle sensory inputs which have not yet been processed by the brain into conscious, recognizable, and logical thoughts. The reliability of a Marine's intuition depends on many factors—key of which is experience and training. It is a combination of historical experience, heightened observation, and an ability to subconsciously recognize something within an environment. For example, police officers often claim to observe suspects and immediately know that they possess a weapon or illicit narcotics. They are often unable to articulate why, or what prompted their beliefs at the time of the event, but they can occasionally relate their reactions back to past experiences. Intuition is useful to Marines in making judgments about people, culture, and tactics. In the absence of recognizable facts, Marines may have to rely on their intuition alone when making a decision.

ASSESSING QUARRY NUMBERS

Evaluating and attempting to understand every possible aspect of the quarry is essential to interpreting their number, movement, location, and likely intent. If available, tactical questioning of witnesses or victims and electronic surveillance methods are useful in determining the number of quarry. When these resources are unavailable, a tracking team can make an estimate of the number of quarry by using the following three methods:

- Direct count method.
- Average pace method.
- Comparison method.

Direct Count Method

The direct count method is the easiest, fastest, and most effective method when there are less than six quarry. This method involves physically identifying each distinct print along the track line (see figure 9-13) based on the number of distinct tread patterns, shoe sizes, and wear patterns.

How many quarry?

Figure 9-13. Direct Count Method.

Average Pace Method

The average pace method (displayed in figure 9-14), involves taking an average of the number of prints in a defined area. It is best used when there are too many tracks to use the direct count method. This method begins with identifying one set of easily recognizable prints (i.e., key prints) made by one person. A line is drawn behind the heel of one key print across the entire track line, then the tracker moves forward one pace and draws a line behind the heel of the next print from the same foot. This means if the first line was drawn behind a left print, then the second line is drawn behind the next left print. This creates a box on the track line. Next, the tracker counts the total number of prints (both partial and full) inside the box and then divides by two—because the individual with the key print took two steps in the box, it can be assumed that the rest of the quarry took two steps in the box also. If the count yields an odd number, the tracker rounds up. The resulting number is the approximate number of quarry.

Draw line behind 1st & 2nd right key print

60-64 inches count full and partial prints and divide by 2

Identify key prints
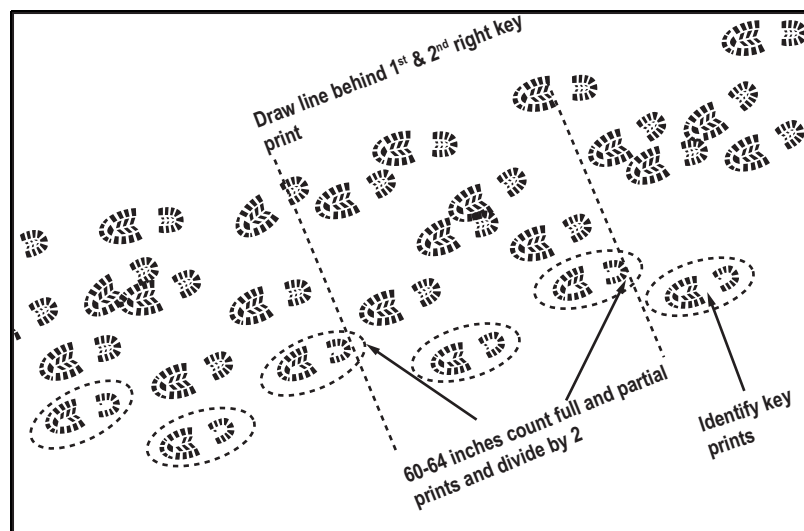
Figure 9-14. Average Pace Method.

Comparison Method

This method is used when the quarry being followed has moved in a single-file line or column formation. When a quarry walks in a column, it is difficult to recognize each individual print. Therefore, the tracking team compares their own tracks in a single-file line to those of their quarry (see figure 9-15). For example, a four-member tracking team would walk in single-file for a distance parallel to the track, giving them an idea what a four-person track looks like. Next, they compare it to the quarry's track. If the quarry's track has more disturbance, the team walks over their tracks again; giving them a comparison to an eight- member team. This method is repeated until the tracking team creates a track line that appears similar to their quarry's. The tracking team multiplies the number of passes that were required by the number of team members to estimate the number of quarry. For example, if a four-member team requires five passes to create a similar track to the quarry's, they can estimate that they are following approximately twenty people.

Tracking team compares tracks on right with their tracks on left and determines 4 people
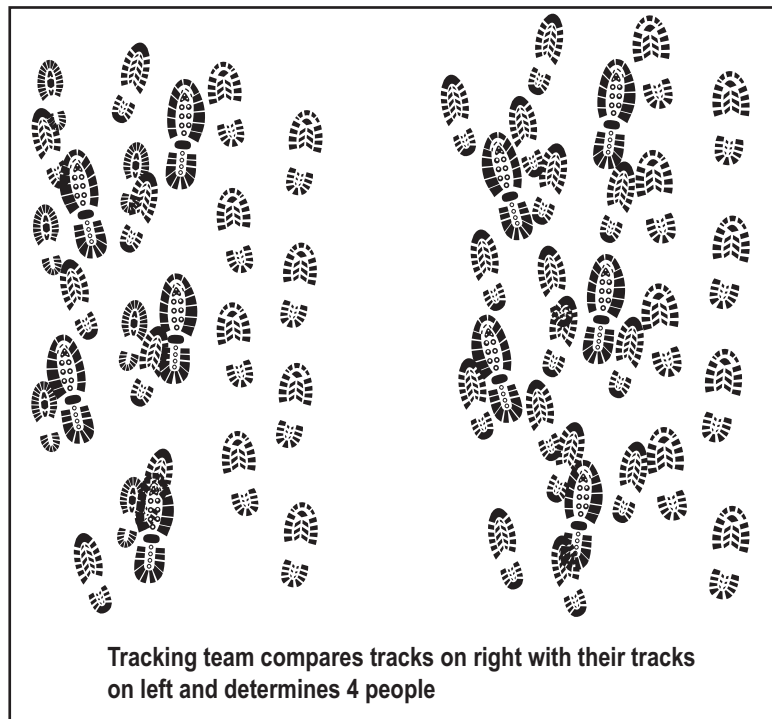
Figure 9-15. Comparison Method.

PROCESSING THE INITIAL COMMENCEMENT POINT

Acquiring and analyzing the spoor begins when the initial commencement point is identified. It is critical that the tracking team takes great care to preserve and prevent the contamination of the spoor until the initial commencement site is identified. To do this, tracking teams use the following three basic steps to process an initial commencement point:

- Secure the site.
- Locate the spoor.
- Record information.

Secure the Site

Securing the incident site is critical to preserving the area from further contamination and disruption. If a site is not secure, a cordon may be formed around it so a tracker can identify the initial commencement point. Once the area has been secured, the tracking team may take the time to identify spoor.

Locate the Spoor

The initial commencement point is the first point that spoor can be correctly identified and isolated. Since the initial commencement point may not be found immediately, identifying clearly definable spoor may take additional time.

Record Information

The tracker should record any pertinent information about the spoor that may assist later in tracking, since memory alone is not reliable. This starts with beginning a tracking log and starting the initial tracking report. It also includes photographing the initial commencement point; making drawings, spoor cards, and castings; and collecting information from victims and witnesses. Each type of print at the initial commencement point should be recorded if possible, although identifying several key prints may make it possible to remain on the spoor afterward without recording every print. Some methods to improve accuracy include using a camera, tracking log, spoor cards, and a tracking report.

Camera. If the tracking team is equipped with a camera, they can use this to record the spoor. While this is good for recording the spoor for forensic and quick reference, it does not increase the team's familiarity with the prints as much as drawing them does.

Tracking Log. During an extended follow-up, it is crucial for the tracking team to record the information that it learns. The log assists in making comparisons and assumptions later to supplement the tracking report, when submitted.

Spoor Card. The most effective way to record information is using a spoor card. Spoor cards are used by a tracker to quickly capture specific details about a quarry. The items recorded on the spoor card can include the type and style of footwear worn by a quarry, the print dimensions, and the unique characteristics of the quarry's gait (i.e., style of walking). An example of a spoor card is in appendix I. By continuously filling out spoor cards, trackers get a much better "feel" for the spoor and increase their ability to recognize the spoor in the environment.

Tracking Report. The tracking team uses the tracking report, which is a modified SALUTE report, to record and report information. This is the most accurate and reliable method to transcribe and subsequently transmit information when conducting a follow-up. A tracking report includes the location, number of quarry being tracked, direction of movement, and the age and type of spoor found. This information is commonly referred to as the "LNDATA" of the tracking report. The basic tracking report is a seven-line report that can be passed over the radio (refer to appendix J). However, at the end of the follow-up, the final tracking report submitted to the unit commander can include additional items, such as copies of incident logs, spoor cards, and photographs.

CONDUCTING THE FOLLOW-UP

A follow-up is tracking and pursuing a quarry to gain information. From the commencement point, the tracking team gathers all available information, assesses the situation to develop a reasonable conclusion, and reports and makes recommendations to the unit's HHQ. The principles of the follow-up are to—

- Get into the mind of the threat.
- Confirm or deny assumptions.
- Close the time-distance gap.

The tracking team must take time to obtain as much information as possible from the initial commencement point and surrounding area to enhance its chances for a successful follow-up. If the tracking team is assigned to investigate an area following contact with the enemy, they should attempt to determine the following from the initial commencement point:

- *Who*. The type and number of persons to be followed.
- *What*. The incident precipitated the need for the follow-up.
- *Where*. Where the incident occurred (helps determine the initial commencement point or potential threat TTP).
- *When*. When the incident occurred (helps calculate the time-distance gap).
- *Why*. Determine the circumstances of both friendly and enemy units in relation to the incident.
- *How*. How the incident occurred—specific indicators of the incident that may tell a plausible story should be looked for.

Making Conclusions and Recommendations
The tracking team should continually assess the information it gathers. After developing conclusions about the threat, the tracking team should offer recommendations and possible courses of action to HHQ (e.g., continue the follow-up, request a quick reaction force, employ dog teams, establish blocking positions forward of the quarry, or deploy intelligence, surveillance, and reconnaissance assets). Compiling information for the tracking report is key to developing conclusions and recommendations. After completing the follow-up, the tracking team must compile all the information it gathered to submit a tracking report with all supplemental supporting documents to the unit headquarters. Scrutiny should be used in analyzing all observations and facts to develop assumptions before the report is submitted to HHQ.

Interpreting Information
The tracking team gathers facts, interprets relevant information, and makes assumptions continuously during the follow-up to improve situational awareness. Facts and assumptions should be recorded as they are identified. This information is critical during the follow-up to help reduce the time-distance gap. All incidents should be recorded in the tracking log (see table 9-1); this provides supporting information to complete the tracking report after the follow-up. When interpreting information, the tracker and the tracking team should consider facts and assumptions based on what they uncover while conducting the follow-up. Examples of facts include the type of

footwear, the direction the quarry moved, and the presence of litter left by the quarry. Examples of assumptions include the quarry's speed of movement, tactical skill (well- trained or untrained), and level of supply. Assumptions allow the tracking team to continue the follow-up until they are confirmed or denied.

Table 9-1. Tracking Log Example.

Incident #	Facts	Assumptions
01	Found (75) 7.62x39mm casings (GS11S42111221).	Quarry armed with Soviet style small arms.
02	Found (6) different sets of footprints (GS11S42151234).	Enemy operating in small groups.
03	Found (1) set of prints, shoulder-width apart. Aerial spoor of burned trees seen behind footprints. Direction of fire is to the NW (GS11S42061278).	Quarry armed with rocket propelled grenades. Site is likely a point of origin for an attack along the adjacent highway.
04	Found multiple sites where individuals were laying in prone positions along an avenue of approach. Sites equated to a 90-degree angle (GS11S42241661).	Quarry is well-trained in small unit tactics and able to establish complex ambushes.

Tactical Movement

It is critical that a tracking team moves tactically while conducting a follow-up. The tracking team may be serving as the lead element of a patrol, and could therefore be exposed to the threat first. The conduct of a follow-up is both mentally and physically challenging, and requires Marines to maintain a high level of discipline and tactical awareness to accomplish the mission without compromising the safety of the team. To do this, the tracking team should—

- *Communicate with hand-and-arm signals*. The most effective, efficient, and secure method of communication within the tracking team is the use of hand-and-arm signals. All Marines must rehearse and understand the proper use of tracking hand-and-arm signals. It is essential that Marines use proper noise discipline when conducting a follow- up to avoid giving the team's position away due to noise.
- *Use proper camouflage techniques*. A tracking team's primary mission is to close with threats and determine their location, routes of movement, and capabilities. Patrols employing tracking must also be prepared to engage with threats, since they are typically armed. Camouflage is critical when conducting a follow-up because it minimizes the chance of visual recognition by the quarry. A tracking team may make visual contact with the threat without having the ability to engage them successfully. In this case, the tracking team will need to maintain visual contact, making camouflage more critical.
- *Utilize the correct formations*. Each formation has its advantages and disadvantages. It is important that a Marine in a tracking team understands each specific formation and maintains a proper position relative to the rest of the team. The primary concerns for any formation are security and speed.
- *Know the tactical situation*. The mission, the threat situation, the time-distance gap between the team and the quarry, and the terrain dictate which formation and security posture the tracking team will assume. Every Marine must understand the tactical situation to maximize tactical tasks when conducting a follow-up.
- *Know the threat situation*. One of the primary responsibilities of patrolling (including tracking) is collecting information about the operational environment. The information to be collected

(usually in the form of IRs) must be briefed to the team prior to the follow-up, and reported immediately to the unit HHQ when uncovered.

- *Move under a combat load*. Tracking teams may be required to track for great distances through challenging and arduous terrain, such as jungles, mountains, and forests. Team members must be physically fit and able to carry enough supplies to sustain themselves over extended periods of time.

- *Maintain situational awareness*. Members of a tracking team must maintain situational awareness at all times, as they are often the lead element of a moving unit and actively searching for threats. Proactive situational awareness relies upon enhanced observation techniques (discussed in chapter 8), allowing the team to actively seek and anticipate threat contact. Tracking team members must be detail-oriented and attentive to their surroundings. When a tracker becomes fatigued or continues to lose spoor, the team leader must rotate team members to maintain the highest degree of situational awareness at all times.

- *Maintain observation on the area*. Constant and continual observation of the area is required by all members of the tracking team, specifically the flank and rear security team members. Team members must anticipate and proactively search for threat contact, anticipate and identify potential ambushes and obstacles (both explosive and non-explosive), and identify changes in the environment.

TRACKING TECHNIQUES

The techniques selected for tracking a quarry chiefly depend on the quarry's activity, speed, terrain, load, and physical condition. The tracking team must understand that these characteristics are likely to change as they conduct the follow-up, which may drive changes in the techniques applied. Analyzing these characteristics during the follow-up helps the tracking team to recognize indicators of the quarry's actions or intent. A tracking team learns to correctly identify the variations in these characteristics through training, practical application, and research. Tracking techniques are broken into two main categories—micro-tracking or macro-tracking.

Micro-Tracking
Micro-tracking is a very detailed technique in which the tracker seeks to identify all spoor in a sequential order. The tracker identifies an initial spoor, and then identifies the subsequent spoor by estimating the quarry's next stride. While this method is very effective, it is also time- consuming and fatigues the tracker quickly. This technique may cause the tracker to lose their "feel" for the terrain and lose visual contact with team members. Micro-tracking is commonly referred to as a "step-by-step" method, and is based on the average stride of a human (i.e., 30 inches). Micro-tracking is typically used for finding detailed evidence and is used when time is abundant and closing the time-distance gap on the quarry is not critical.

Macro-Tracking
Macro-tracking is focused on speed, reading only the most evident spoor, and moving quickly to close the time-distance gap on a quarry. A tracker uses macro-tracking by continually looking ahead to identify the furthest recognizable spoor (see figure 9-16). Looking ahead as far as possible, the tracker keeps moving toward the identified spoor while continuously scanning ahead

for next spoor. A tracking team can quickly follow a quarry and maintain this technique for extended periods. This is generally the most preferred method when time is critical and spoor is easily recognized. However, macro-tracking increases the risk of losing or incorrectly identifying the spoor, as well as the risk of engagement with the quarry if they catch up to them.

Look forward 15 to 20 meters

Figure 9-16. Macro-Tracking.

TRACKING TEAM FORMATIONS

Tracking teams use tactical formations to maximize their ability to follow the track and provide security. The entire team must constantly monitor the tactical situation and the terrain they cross and make the necessary adjustments to move along the track line with confidence and security. The tracking team selects the appropriate formation based on METT-T. Formations may be modified when the tracking team is augmented with additional Marines. Based on a four- Marine tracking team, the standard tracking formations are:

- The "Y" formation.
- The echelon "half-Y" formation.
- The column formation.
- The online formation.

The "Y" Formation
The "Y" formation is the standard tracking team formation (see figure 9-17). It provides the best balance between security, speed, and control. In this formation, flankers walk at a 45- degree angle ahead of the tracker. While their distance is dependent on the environment and tactical situation, they must remain close enough to communicate with hand-and-arm signals.

They must also remain within sight of the team leader to see and adjust to commands, yet offset enough so as not to contaminate the spoor. The tracker is positioned at the center of the formation along the track. The team leader is positioned directly behind the tracker along the track, but also offset enough to not contaminate the spoor.

> *Note:* If the team is reinforced to a five or six-person formation, its rear security should fall 10-30 meters behind the team leader, based on terrain.
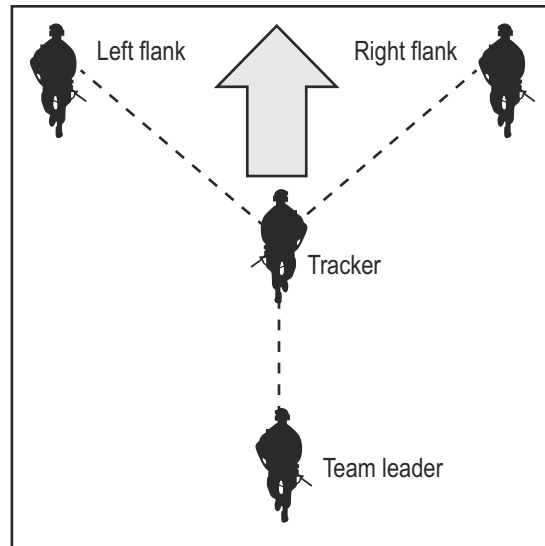
Figure 9-17. "Y" Formation.

Echelon "Half-Y" Formation

This formation closely resembles the echelon formation for a fire team (see figure 9-18). The positions of the team members are the same as in the "Y," except one of the flank security Marines is repositioned and placed behind the tracker or team leader. This flanker is still responsible for keeping the same primary and secondary zones of observation for security. This formation is used when terrain restricts movement to one flank, or the tactical situation indicates that threat contact may come from a specific direction. This formation provides a good balance between speed and control, but security is somewhat degraded by focusing it in one specific direction.
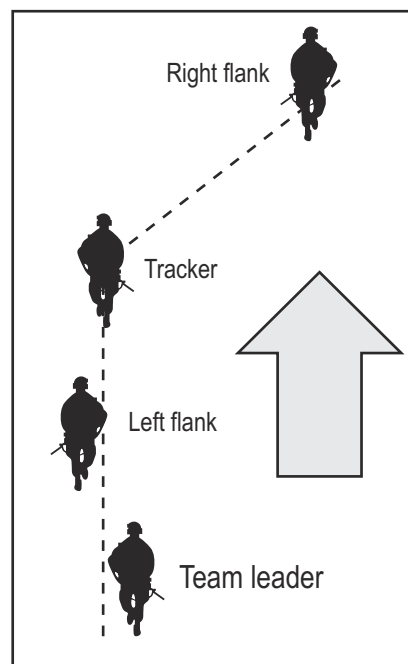
Figure 9-18. Echelon "Half Y" Formation.

Column

The column formation is a linear staggered formation (see figure 9-19); the decreased lateral dispersion between Marines (compared to the "Y" formation) masks the number of Marines in the tracking team. It is relatively easy to control, but provides little security. The column formation is used when terrain is restrictive to the point where other tactical formations cannot be used. It is also used when time is critical, threat contact is unlikely, and closing the time-distance gap to the quarry is essential. This formation should only be used when no other formation can be used. In this formation, the tracker is the first person in the formation to read spoor and prevent its contamination. The tracker is exposed in this formation and not looking outward, and therefore, requires a cover Marine—typically a left or right flanker. That flanker is followed by the team leader, and then the other flanker for rear security. The team leader should switch to another formation as soon as the tactical situation or terrain permits. Each team member continues to maintain their individually assigned sectors of observation for movement.
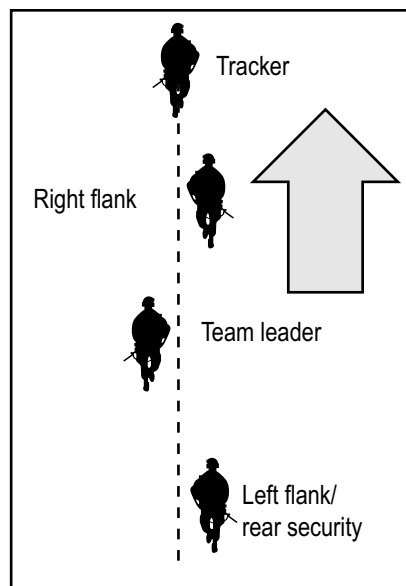
Figure 9-19. Column Formation.

Online

This is the same formation as a fire team online formation (see figure 9-20). This formation is used when the time-distance gap has been closed and contact with the quarry or threat is eminent. In this formation, the tracker is still at the center of the formation and all team members are still
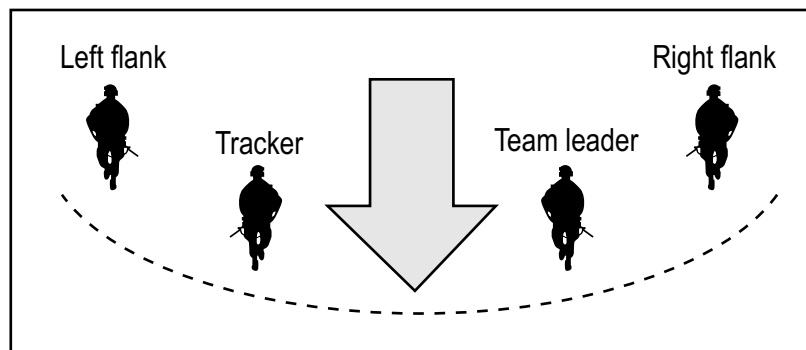
Figure 9-20. Online Formation.

responsible for their observation zones. This formation provides the greatest amount of observation, security, and firepower to the front.

TRACKING HAND-AND-ARM SIGNALS

Hand-and-arm signals should be the primary means of communication between foot-mobile Marines in any tactical formation. These signals are critical because they generally work in all conditions, require no noise or technology, and can be easily understood. Like all hand-and-arm signals, the team must relay them to each other and immediately respond to them once given by the team leader. Internal radio communications are less preferred because radio channels can become cluttered with instructions and questions, are prone to technical difficulties, and may be
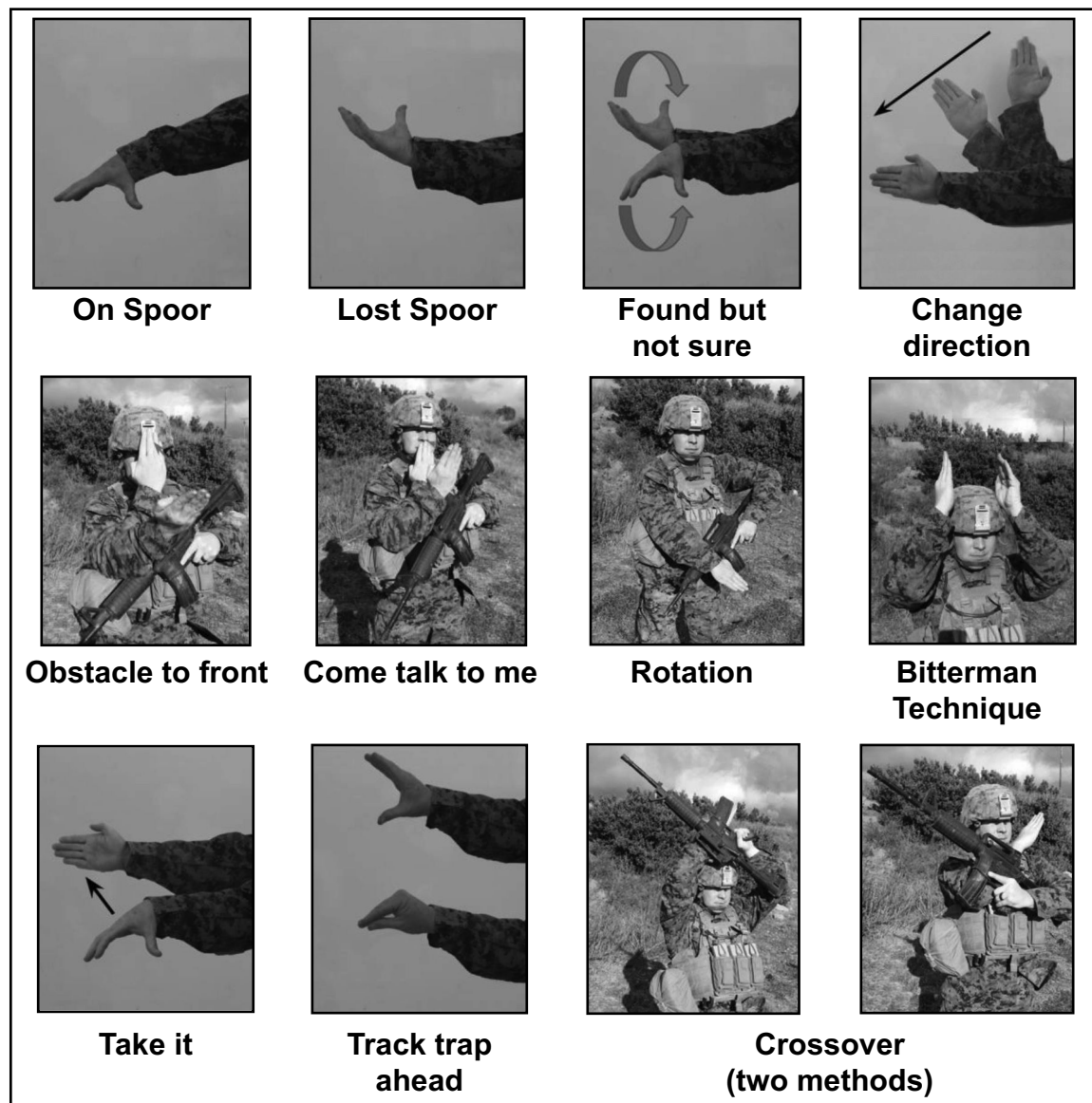
Figure 9-21. Tracking Hand-and-Arm Signals.

overheard by the threat as they are transmitted. The hand-and-arm signals displayed in figure 9-21 are unique to tracking and complement the standard infantry hand-and-arm signals.

| **Perform Tracker 360** | **Scanning with optics** | **Quarry sited** |
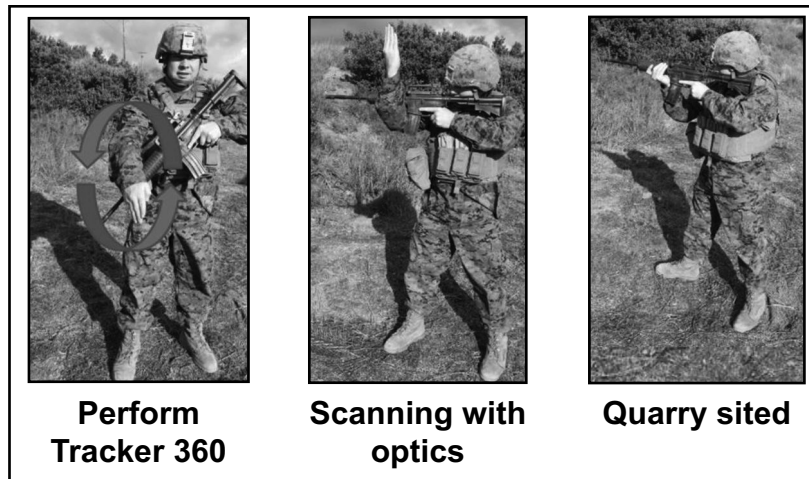
Figure 9-21. Tracking Hand-and-Arm Signals—continued.

LOST SPOOR

To effectively follow a quarry, a tracker and tracking team must be well-trained in identifying and following spoor. However, there are occasions when even well-trained trackers may lose the spoor during a follow-up. When this happens, the tracker and the tracking team employ lost spoor procedures to regain the track. The tracker may be able to quickly locate the spoor alone, while other times it requires the entire team. If the tracker cannot locate the spoor alone, they show the lost spoor signal to the team leader. The team leader quickly moves forward and the tracker indicates the last known spoor on the ground. The last known spoor is then marked, either by placing a marker on the ground or by having a member of the team stand at the location. The team leader or tracker then determines which lost spoor technique is best suited to reacquiring the spoor.

Lost Spoor Procedures Using the Tracker Only

The tracker may be able to quickly regain the spoor without help from the other members of the team by employing the following techniques:

- Quick scan.
- Likely lines search.
- Tracker's 360.

The Quick Scan. The quick scan is conducted as soon as the tracker can no longer see the spoor ahead, before giving the lost spoor signal. The tracker stops behind the last known spoor and quickly but carefully scans the ground from either the left or right outward in a 240-degree arc to the front (see figure 9-22). This is then repeated to the rear. Therefore, if the quarry takes a sharp turn either left or right, the tracker should see the spoor before the lost spoor signal needs to be communicated.
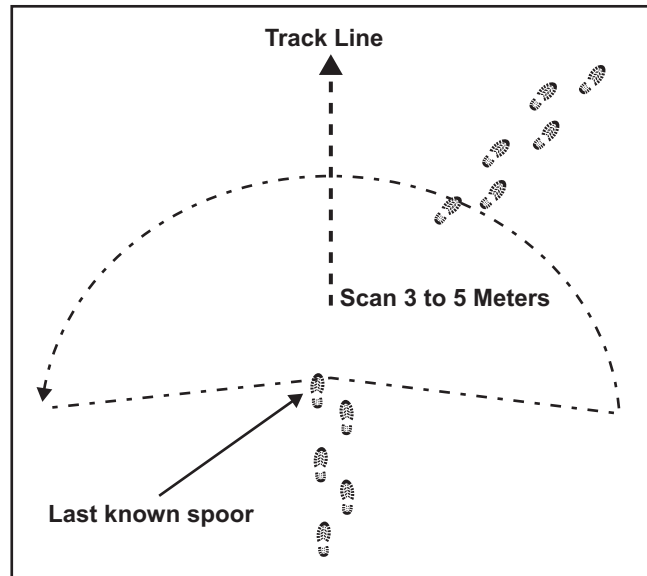
Figure 9-22. Quick Scan Technique.

Likely Lines Search. A likely line refers to the most probable route the quarry chose based on the terrain. Refer to figure 9-23. A likely lines search may be used next if a quick scan does not locate spoor. The tracker marks the last known spoor and studies and scans ahead to attempt to identify the quarry's most likely line of movement. The tracker then moves forward from the last known spoor along the first likely line. If the spoor is not located, the tracker moves to the last known spoor and checks the second most likely line, then the third. This is continued until the track is relocated. If the spoor cannot be located, the team leader and tracker choose another technique.
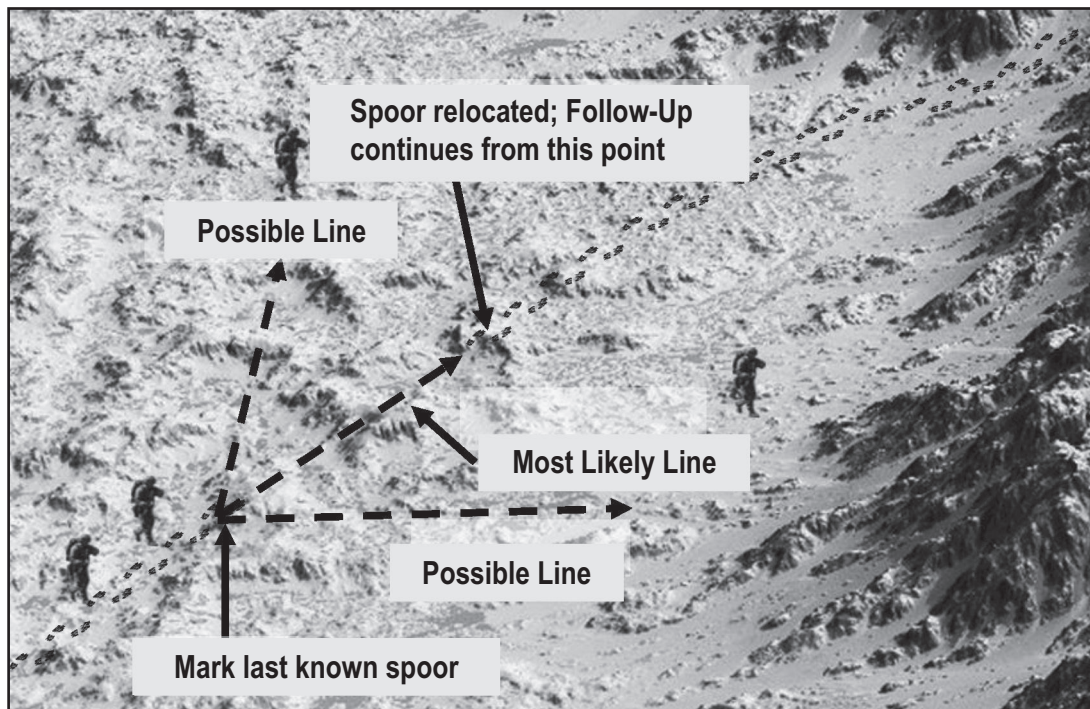
Figure 9-23. Likely Lines Search.

Tracker's 360. If the spoor cannot be relocated by the tracker alone using a quick scan or likely lines search, the tracker may conduct a tracker's 360. Refer to figure 9-24. Once the last known spoor is marked, the tracker begins to move in a circle extending about 20 feet out and around the last known spoor, within the protection of the flank security, to locate the lost spoor. The tracker must take a position such that the light is used to maximum effect while moving sideways, scanning back and forth to create the maximum opportunity to acquire the tracks. If the initial 360 does not locate the spoor, and if the tactical situation allows, the tracker should execute a larger 360 outside of the flank security. The flank security must remain stationary and in a protective mode while this larger tracker's 360 is conducted. The tracker is not protected by the physical presence of the flankers, but should be within the effective range and firepower of their weapons.
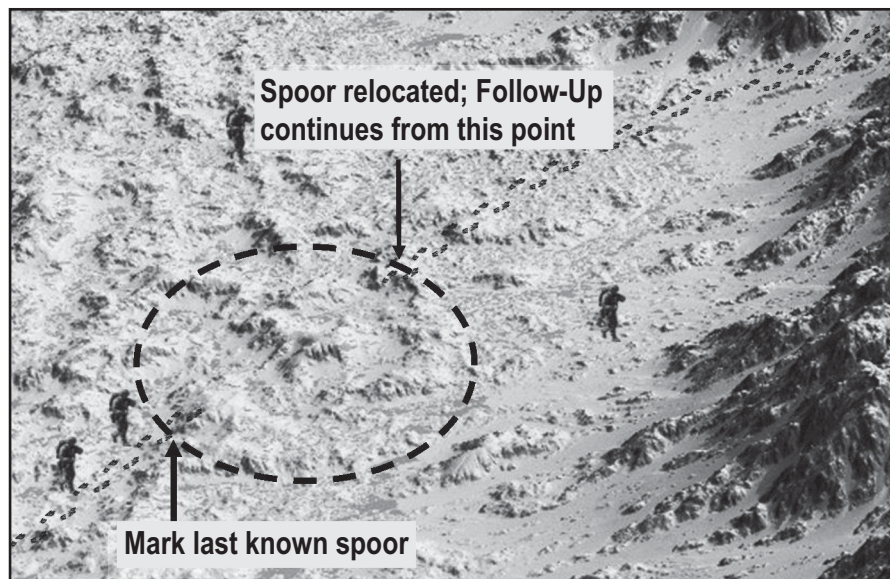
Figure 9-24. Tracker's 360.

Lost Spoor Procedures Using the Entire Tracking Team

There will be occasions when the tracker will not be able to reacquire spoor without the team's assistance. The team leader and tracker mark the last-known spoor and then determine which team technique is best based upon the situation. There are several team techniques that can help reacquire spoor:

- Flank 360.
- Box search.
- Cross-over search.
- Track trap search.
- Bitterman technique.
- Alleyway scans.

Flank 360. Refer to figure 9-25. The flank security moves around in interlocking circles ahead of the 360-degree search from the tracker's 360 that did not locate spoor, thereby extending the search into undisturbed ground. Depending upon the tactical situation, the flank 360 can be conducted by one flanker individually or both flankers concurrently. The team must ensure that all

360-degree searches interlock so there are no gaps between them. If the flank security detects possible spoor, the tracker may confirm it or continue searching. If the spoor is not located, the tracking team must either repeat a wider 360 or implement another lost spoor technique.
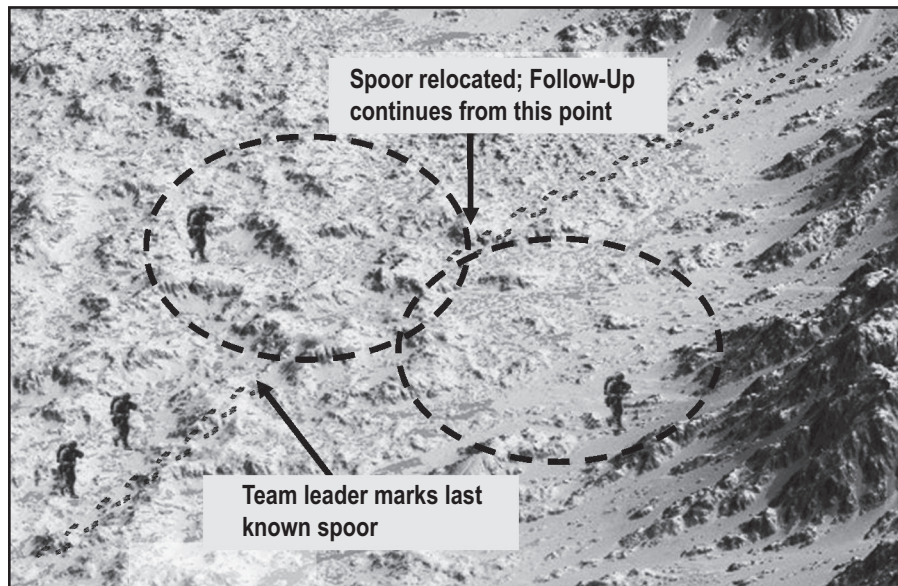
Figure 9-25. Flank 360.

Box Search. A box search is a systematic search conducted within an area that contains a natural or artificial boundary. Refer to figure 9-26. To conduct this technique, the team leader designates the area or box for the tracking team to search, either by observation or map reconnaissance. The team searches along the boundary of the box, looking for spoor where the quarry may have cut across these lines. Boundaries could include improved or unimproved surface roads, fields, streams, fences, or railroad tracks. If no tracks are found, the tracking team must consider that the quarry may still be inside the box.
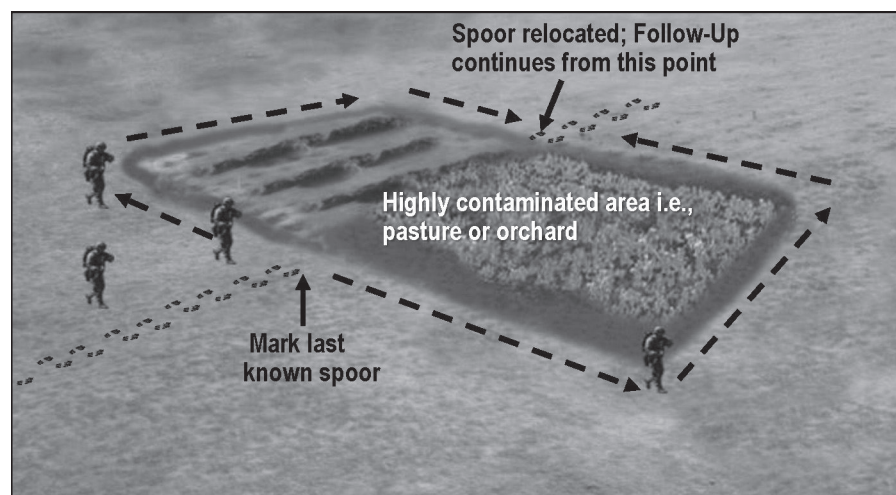
Figure 9-26. Box Search.

Cross-Over Search. The cross-over technique places two flankers out and ahead of the tracker, who then "cross-over" to the other sides of the formation while searching the ground for spoor.

Refer to figure 9-27. Once spoor is located, it may be confirmed by the tracker or the tracking team may continue along the discovered spoor.

Figure 9-27. Cross-Over Search.

Track Trap Search. A track trap is a piece of terrain where spoor can easily be identified, and typically bisects the quarry's likely line of travel (refer to figure 9-28). Some examples are dirt roads or trails, sandy areas, cultivated fields, earth banks, and dry creek or river beds. Because each track trap is unique, there is no specific technique for searching them. The team leader and tracker decide how to best search the trap to locate spoor based on the trap's size and composition.
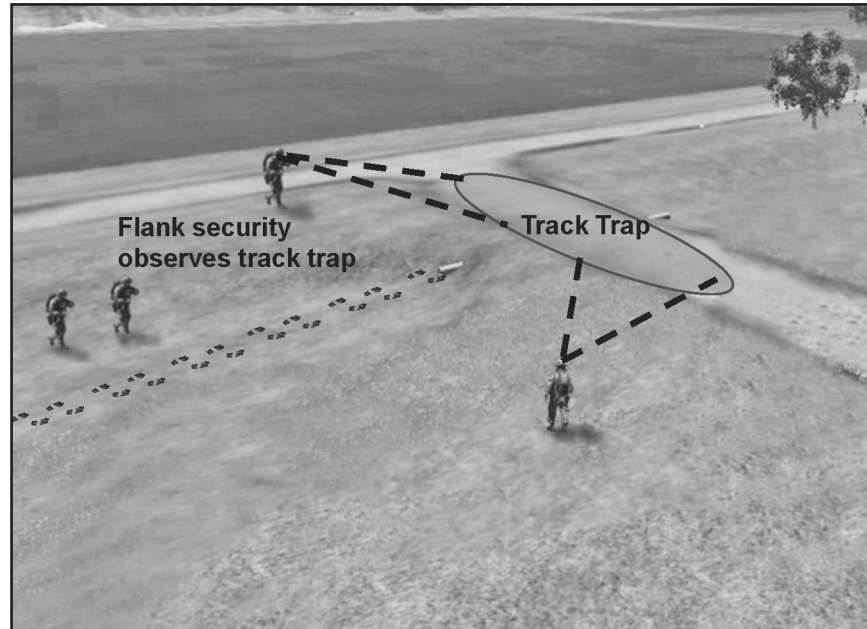
Figure 9-28. Track Trap Search.

Bitterman Technique. Refer to figure 9-29. The bitterman technique assumes the quarry is following a specific azimuth or line of travel. The tracking team determines this azimuth by aligning team members along the track line and "shooting" an azimuth using a compass.
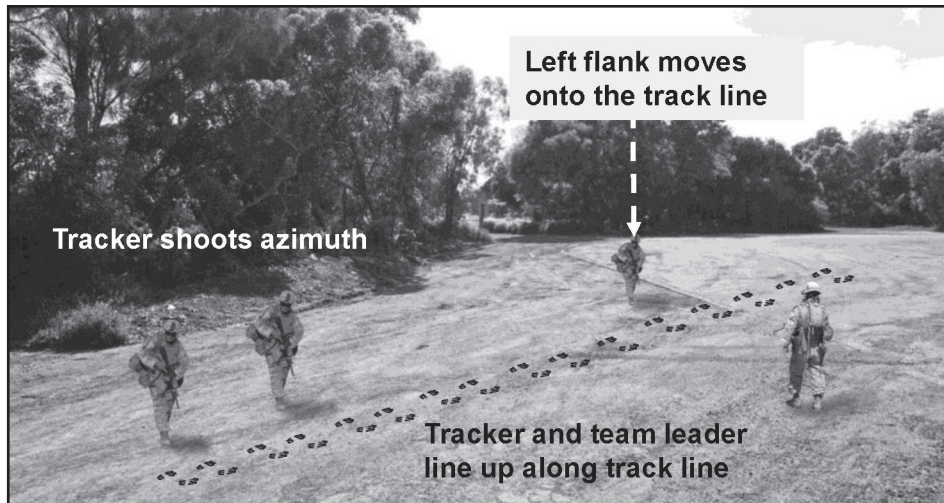
Figure 9-29. Bitterman Technique.

Alleyway Scans. The alleyway scan is used when the spoor moves along a commonly used track, trail, riding path, or stream bed. It is effective when the spoor is obvious and can be seen from a distance. Refer to figure 9-30. The flankers bound alternately up the sides of the trail. This may be performed on one or both sides of the trail as the situation dictates.
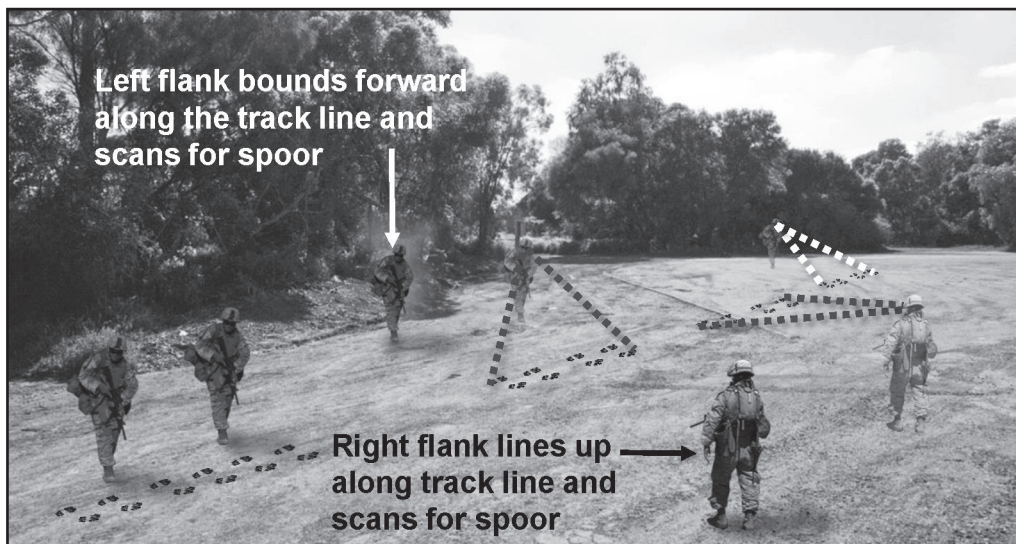
Figure 9-30. Alleyway Scan.

ANTI-TRACKING

If the quarry suspects or knows they are being followed, they may employ anti-tracking techniques to mask their movement. Knowing they are being tracked puts enormous psychological and physical strain on the quarry, which may increase their chances of making

mistakes that could lead to their capture or death. These mistakes may also drive them to become more drastic—such as choosing to engage the tracking team in an ambush.

Applying anti-tracking techniques requires time and energy. Evading a trained tracking team is a difficult task that requires refined deception skills. While a well-trained quarry can minimize spoor and confuse or deceive a tracking team following it, it is very difficult for a person—and especially for a group—to move across an area without leaving signs that are noticeable to a trained tracker. A quarry may use several different methods to elude a tracking team. These may vary from simple to elaborate, depending on the quarry's skill and the available time.

To deliberately hide or eliminate a track line, the quarry must either slow down or stop moving. If a tracker can recognize the technique being used, they can rapidly close the time-distance gap using methods which leapfrog forward on the track line by anticipating the quarry's movement using track traps, natural lines of drift, and likely lines. In this case, any temporary advantage gained by the quarry in performing anti-tracking will be negated.

When a track line suddenly disappears, a tracker must ask, "Where did the quarry go, and what did they do to hide their tracks?" Trained trackers will quickly find the quarry's track line, continue with the follow-up, and close the time-distance gap because they understand the techniques used to overcome the threat's TTP. Marines must be able to recognize when the quarry is employing anti-tracking techniques, as well as possess the knowledge to employ anti- tracking themselves in the event they must evade a threat or avoid contact.

It is imperative the tracking team continually think ahead and apply pressure whenever they can while remaining observant for possible contact. There are four effective methods designed to deceive, harm, or counter a tracker or tracking team. Each has advantages and disadvantages, and must be selected according to METT-T considerations. These methods include—

- Increasing the time-distance gap.
- Anti-tracking techniques.
- Spoor reduction techniques.
- Counter-tracking

Increasing the Time-Distance Gap
This method is an effort to out-pace the tracker or tracking team by moving quickly enough so that they will not have the opportunity to close the gap. When used correctly, it is effective against unskilled trackers, when the escape distance is short, or when the unit can exfiltrate before the threat is aware of their presence. Some disadvantages are that the speed of movement creates more disturbance to the environment, increases noise, decreases situational awareness, and that it is difficult to move fast enough under duress with heavy loads, wounded personnel, or when fatigued.

Anti-Tracking Techniques
Quarry that are trying to hide their trail move with caution and at reduced speeds. A quarry may wrap their footwear with rags or wear soft-soled sneakers that make footprints rounded and less distinctive, or change into footwear with a different tread immediately following a deceptive maneuver. They may try to leave less spoor by walking on hard or rocky ground, moving along

streams and waterways or well-used rural paths and tracks, or walking in each other's tracks to conceal their numbers (i.e., column formation or single file). The quarry may also actively attempt to conceal their signs and spoor by brushing out tracks, restoring vegetation to its natural state, blowing out tracks with compressed air, or dragging an item behind them to cover their tracks. Anti-tracking methods are only limited by a quarry's imagination. Some of the most effective anti-tracking techniques include:

- Walking backward.
- Ninety-degree turn.
- Cut the corner.
- Slip the stream.
- Figure eight.
- The box.
- The angle.
- The skip.

Walking Backward. One of the most basic anti-tracking techniques is walking backward in tracks that were already made, and then stepping off the track onto terrain or objects that leave little to no signs (see figure 9-31). Skillful use of this maneuver causes the tracker to look in the wrong direction once the trail has been lost. This is often used in conjunction with other deception techniques. By studying signs, an observant tracker can determine whether an attempt is being made to confuse them. If the quarry tries to lose the tracker by walking backward, footprints are deepened at the toe, and soil is scuffed or dragged in the direction of movement. By following carefully, the tracker can usually find a turnaround point.

Soil dragged in the direction Of movement
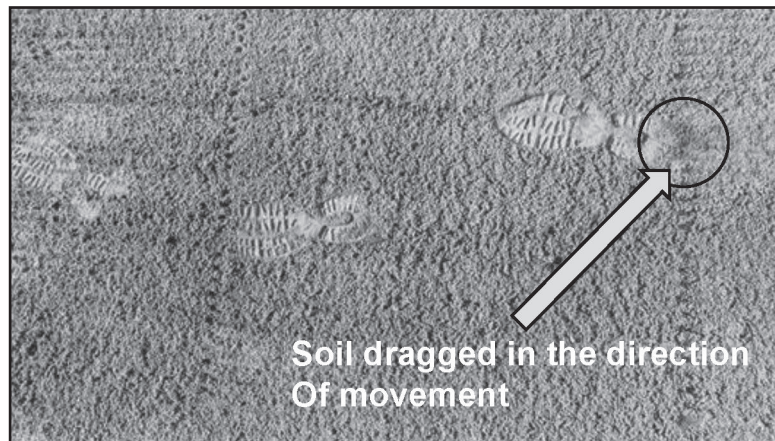
Figure 9-31. Walking Backward Technique.

Ninety-Degree Turn. This is the simplest and perhaps the fastest and most effective method for a quarry to evade a tracking team. It can successfully slow down the most experienced tracking teams. The quarry simply turns 90-degrees in either direction (see figure 9-32).
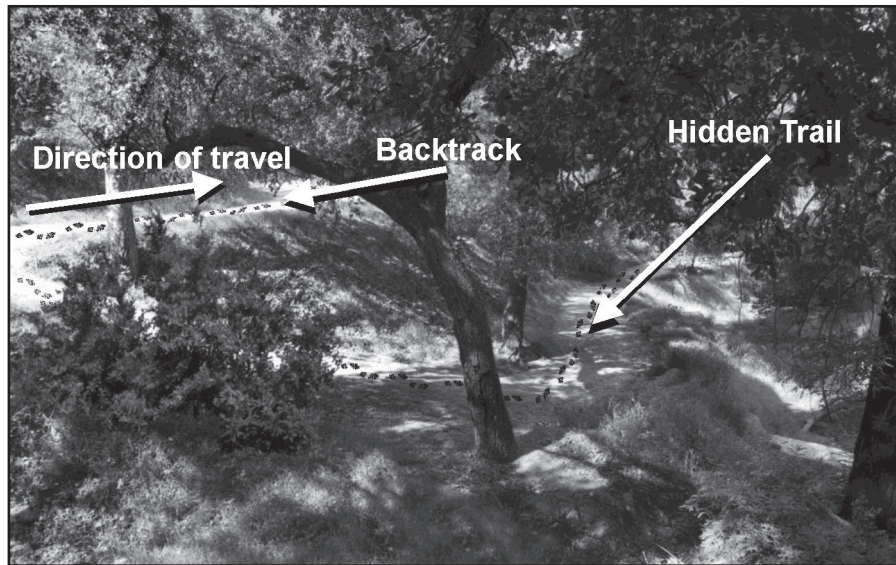
Figure 9-32. Ninety-Degree Technique.

Cut the Corner. The quarry uses this deception method when approaching a known road or trail. Refer to figure 9-33. About 100 meters from the road, the quarry changes its direction of movement 45 degrees, either left or right. Once the road is reached, the quarry leaves a visible trail in the same direction of the deception for a short distance down the road. The tracker should believe that the quarry cut the corner to save time. The quarry then backtracks on the trail to the point where it entered the road and carefully moves down the road without leaving a good trail. Once the desired distance is achieved, the team changes direction and continues movement.
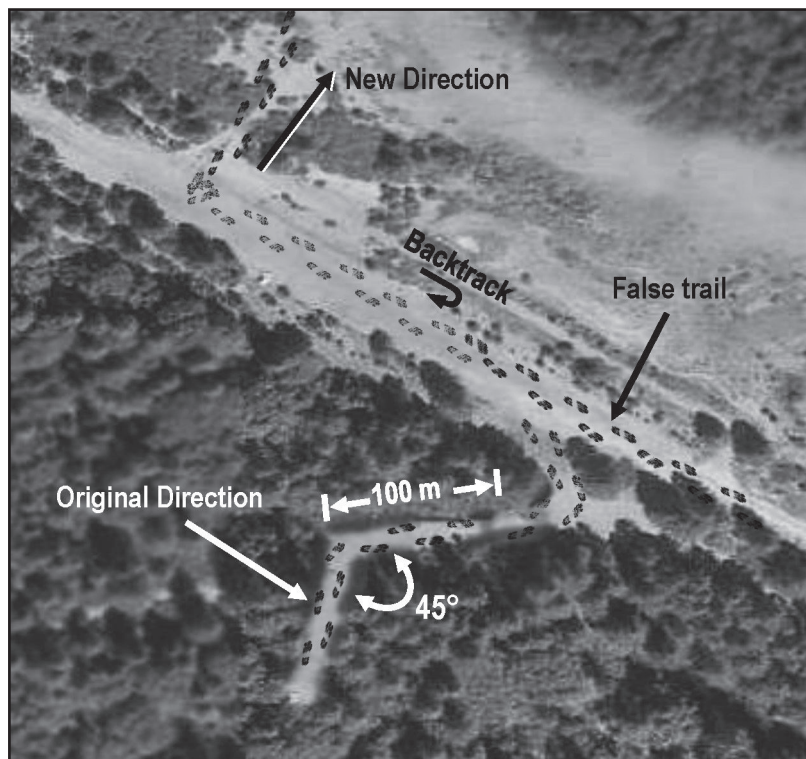
Figure 9-33. Cut the Corner Technique.

Slip the Stream. The quarry uses this deception technique when approaching a stream. This method is the same as the cut the corner technique with the use of shallow water features. Refer to figure 9-34.

The quarry establishes the 45-degree deception maneuver upstream, then enters the stream. The quarry moves upstream and establishes false trails if time permits. Floating debris and silt flows downstream and covers the true direction and exit point. The quarry then moves downstream with the flow of the water to escape to larger water features, which offer more escape alternatives. False exit points may also be employed to further confuse the tracking team.
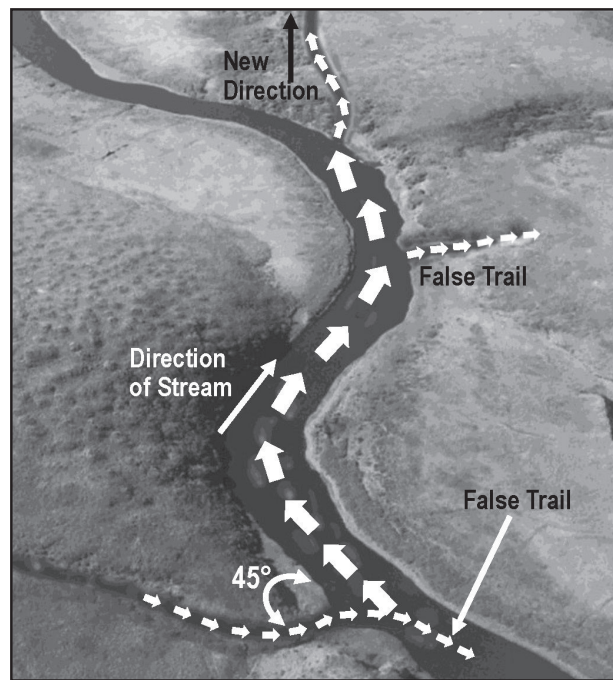
Figure 9-34. Slip the Stream Technique.

Figure Eight. This movement requires the quarry to make a series of figure eight tracks around prominent terrain features and obstacles (see figure 9-35).
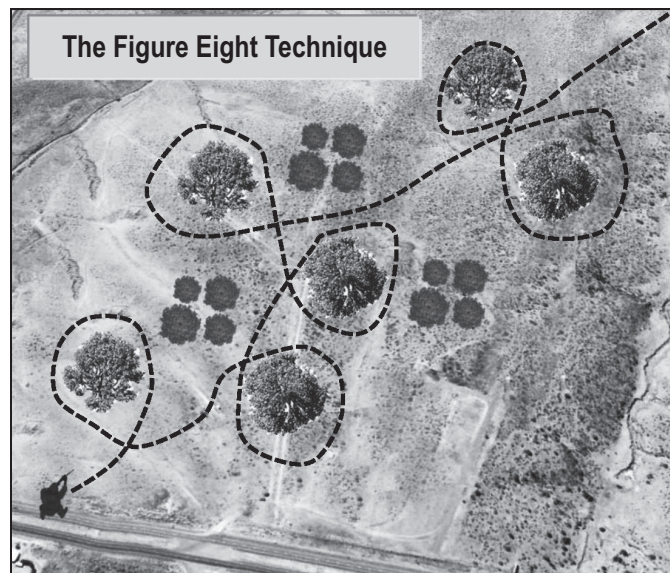
Figure 9-35. The Figure Eight Technique.

The Box. This movement requires the quarry to make a series of square track lines around prominent terrain features and obstacles (see figure 9-36).
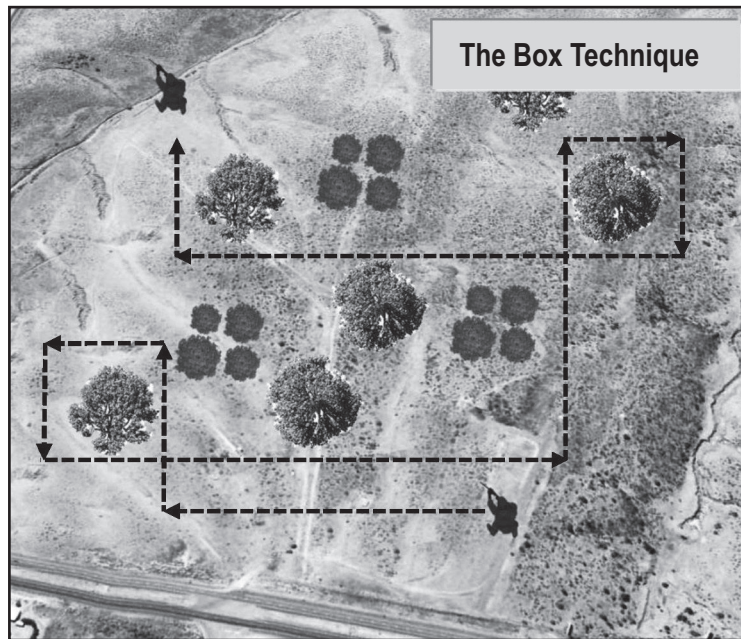
Figure 9-36. The Box Technique.

The Angle. This movement requires the quarry to make a series of sharp turns on pre- designated angles to confuse and delay trackers (see figure 9-37).
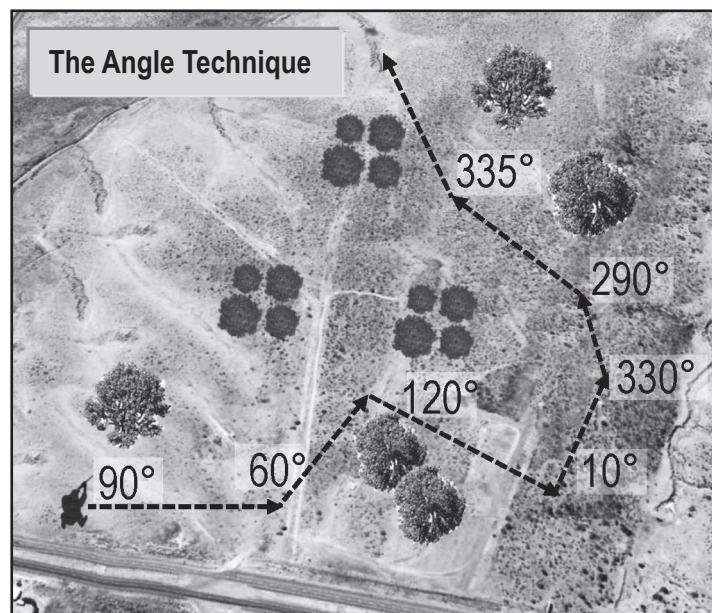
Figure 9-37. The Angle Technique.

The Skip. This movement requires the quarry to shift suddenly to either the right or left flank while on the move to create a new track. This may be done when the new track is in an area where it is harder to leave tracks (see figure 9-38).
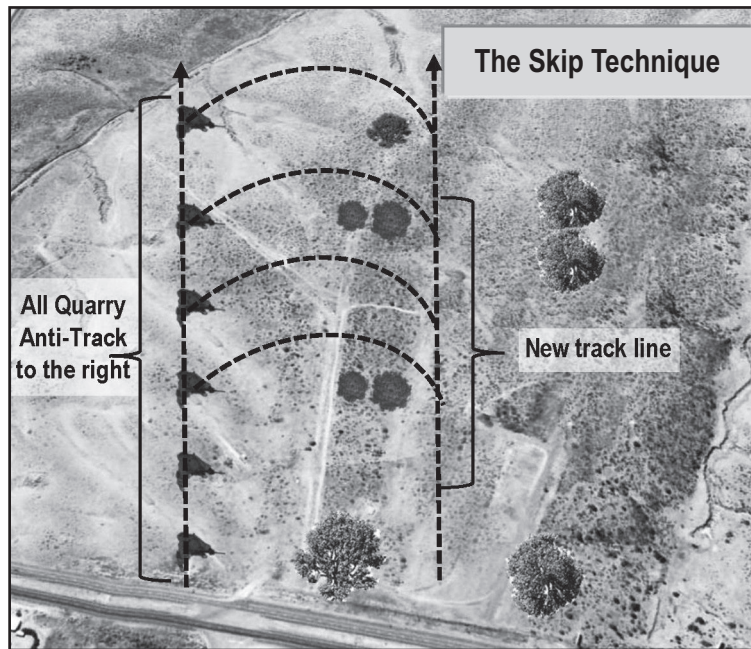
Figure 9-38. The Skip Technique.

Spoor Reduction Techniques

Reducing the amount of spoor left allows the quarry to scatter or progressively split up, making the track more difficult to follow. The technique used depends on the time available, the size of the group, the distance to be covered, and the presence of a friendly or hostile local population. When confronted with indicators of the quarry using spoor reduction techniques, the team should stay together to preserve its strength and integrity. If the team is broken up, it reduces the team's already limited security, as well as its tracking capabilities. In the event the quarry separates into smaller groups, it is frequently better to follow what is considered the largest group, which will likely be easier to track. The three most common techniques are bomb shelling, breakaway groups, and drop-offs.

Bomb Shelling. This technique is effective when the quarry leaves an incident site where contact was made (e.g., an attack). The quarry separates with each person exfiltrating in a different direction, usually to a rally point, safe house, or base of operations. When the tracking team encounters spoor indicating that the quarry executed a bomb-shell technique, the tracking team leader must quickly decide which track to follow. Insurgents in Afghanistan and Iraq were known to use this technique to flee an area, and varied it by exchanging clothes and footwear with locals in the area or by pre-staging them earlier.

Breakaway Groups. This technique involves splitting up into several smaller groups, with each one departing in a different direction. Just as with the bomb shelling technique, the tracking team leader must make a difficult decision on which group to follow. This decision can be made even more difficult if the quarry flees towards or into a contaminated or heavily traveled area.

Drop-Offs. After departing together, one or two of the quarry split away from the group, using hard ground to leave the trail. Additional split-offs occur periodically until there is only one person left to track. This person then merges with a well-used local path, allowing them to disappear into the local populace.

Counter-Tracking

Counter-tracking measures are employed to counter pursuing trackers or influence the threat's decision making to slow down a pursuing tracking team. The employment of ambushes, booby traps, and snipers are a few examples. One of the most common, easiest, and effective techniques is the J-hook method. The quarry uses this technique to double back on its own trail into an overwatch position (see figure 9-39). The quarry then observes from a position of advantage and sets a hasty ambush. If the pursuing force is too large to be destroyed, the quarry may strive to eliminate the tracker. This is a "hit-and-run" tactic used to hide and observe, ambush, gain intelligence, or flee the area.

CONSIDERATIONS FOR TRACKING IN URBAN TERRAIN

The complex nature of urban terrain makes tracking extremely challenging. When a follow-up enters or is inside an urban area, the tracker must rely on their knowledge of the environment, intuition, and critical thinking skills. A tracker's capabilities are enhanced by the depth of their knowledge of the environment paired with their understanding of how people typically move within the urban terrain. This allows trackers to more readily identify track traps, natural lines of drift, and likely lines. Equally important are skills in anticipating what the quarry will do and relying upon intuition. For example, if a tracker knows that the quarry got on a sidewalk headed north, the tracker can reasonably assume that the quarry probably continued until they observed the first or most inviting exit from the walkway.

Figure 9-39. The J-Hook Technique.

Typical urban environments do not yield a great deal of spoor due to the hardness of urban surfaces, which makes the identification of spoor difficult. Since the amount of spoor in an urban environment is likely to be minimal, finding each one is invaluable. Therefore, a tracker's skills in knowing where to look for spoor become exponentially more critical. This is primarily through the use of trap traps. Without them, the ability to identify transferences on hard surfaces such as sidewalks or roads may not yield enough spoor to continue the follow-up. Understanding the environment helps the tracker know where to locate track traps, which reduces time and makes the follow-up faster and more effective. Track traps may be located anywhere within an urban area, such as at or near intersections. These are typically the best areas to conduct a thorough search for spoor. For example, third world countries may have more dirt and debris in the urban areas, providing more opportunities to locate urban track traps. The dust buildup on the sides of the roads, missing sections of pavement, and natural lines of drift at corners or obvious trails are possible track traps in an urban environment. Others could be large puddles, at which transference may be found where a quarry exited the water; this may also provide indications of the quarry's likely lines.

When a track leads to walls or fences in an urban area, they may show transference. It can be found by locating the most likely spot where a quarry might climb the wall or fence and looking for transference on and near it. These can include pieces of ripped clothing, blood spoor from injuries, and disturbances at the likely handholds. A wooden fence may show freshly chipped edges along the top or kick marks on the front that indicate someone has recently climbed it. The search should then be continued on the other side of the wall or fence. This area may yield the best spoor, such as where the quarry may have impacted the ground when jumping down. Transference is likely in muddy, wet, or oily urban areas. If the follow-up is in an underdeveloped area where vehicles are more likely to have leaks—like water, antifreeze, or oil—transference of the quarry's movement may be more evident, although there may also be a higher potential for contamination.

LIMITED-VISIBILITY TRACKING

Limited-visibility tracking is tracking under environmental conditions that require the use of either an artificial light source, ambient light, or NVDs to maintain the track. Limited-visibility conditions occur at night, when the sun is setting or rising, or when excessive cloud cover prevents the ability to see spoor. The decision to conduct tracking in limited-visibility conditions usually is made when time is critical in locating the quarry.

Use of Light During Limited-Visibility Tracking

The use of artificial light can often be critical to tracking under limited-visibility conditions. However, considerations must be given to the intensity and color of the light, as they can play a factor in identifying spoor. Additionally, certain tactical situations may require light discipline, which may limit or even preclude the use of light. The tracking techniques used in daylight can also be used at night. However, conducting a follow-up in low illumination is more complicated and requires greater attention to detail (i.e., micro-tracking). If NVDs are necessary, the device's infrared projector should not be used, since a tracker should always position themselves between a light source and the spoor. The infrared projector washes out the spoor and may hinder the search.

The use of a tracking stick (e.g., a bamboo cane, sickle stick, metal detector, or ski pole) with an artificial light (i.e., flashlight) attached toward the bottom (six-to-twelve inches from the ground) allows the tracker to maintain the proper position of the light without displaying an unnecessarily large light signature, such a spotlight. The light must be positioned close to the ground, and the tracker must adjust its height, angle, and the distance of the beam as the terrain conditions change. Using a white light to track is the most consistent with daytime tracking, but is not always practical when conducting tactical operations.

White Light. If a covert white light follow-up is conducted, it requires a special emphasis on light discipline. The tracker must realize what direction the light is facing since it can be seen from afar. White lights can also be used overtly when noise and light discipline are not required, such as to locate a lost Marine.

Colored Light. Using colored lights (e.g., green, blue, or red) and NVDs increases vision at night, but reduces peripheral vision and depth perception. Staying on spoor and conducting lost spoor procedures are greatly impacted when using optical devices. The environment (i.e., terrain and foliage) appears the same color as the flashlight under the green tint of the NVDs. The characteristics of spoor that help Marines identify it (i.e., lines, edges, shape, contrast, value, texture, outline, color, shine, and rhythm) will be changed. Edges, texture, color, contrast, value, shine, and rhythm may not be identifiable. In forest or jungle terrain, the follow-up will be mostly micro-tracking. During a follow-up at night or similar conditions, the quarry will be less adventurous and more likely to follow an easier route. Trackers should utilize likely lines searches for lost spoor procedures and try to anticipate the threat's movement, which can rapidly close the time-distance gap.

Tracking Team Tactics and Movement Under Limited Visibility

Tactics and movement are modified to overcome limited visibility and communications, maintain security, and accommodate lost spoor procedures. During periods of limited visibility, team dispersion must be reduced as communication and accountability become more difficult. Reduced dispersion formations allow the use of voice communication at low volume. When the loss of the spoor stops the follow-up, the tracker may pair with one of the flankers (i.e., a buddy team) to perform lost spoor procedures. When using optical devices (e.g., binoculars, thermal optics, or NVDs), team members should use the focus ring to see through different layers of vegetation to acquire spoor. The limited depth perception of NVDs requires the tracker to constantly adjust the device's focus in order to acquire and follow spoor or reacquire lost spoor. Spoor that is outside the optic's adjusted and non-adjusted field of view is unlikely to be discovered if team members do not constantly adjust their devices for the environmental conditions. Subtle indicators may never be revealed, no matter how skilled a tracker is.

Movement under limited visibility is difficult under any condition. However, when tracking under limited visibility, movement is particularly challenging, as the team must maintain security as well as identify and follow spoor. Team member assignments may have to be adjusted during limited-visibility tracking to allow the team to track safely and effectively. Among other things, this could include requesting additional Marines for security from the unit commander to allow the   tracker to focus on following the spoor.

Team security is a critical concern for limited-visibility tracking. Teams tend to focus inward due to their limited vision, trying to find and maintain awareness of the spoor. The team leader must maintain situational awareness and emphasize security at all times. If the quarry discovers that they are being followed, there is a greater risk that the tracking team may be ambushed. The tracking team's ability to recognize an impending ambush or attack becomes more difficult in limited visibility. The quarry has a distinct advantage when they know they are being tracked. Utilizing thermal optics throughout the follow-up can greatly enhance the team's security and situational awareness. A dedicated observer may also be utilized at night using thermal optics when available. Thermal optics can help mitigate a possible ambush by the quarry, scan near and far terrain, and help identify the quarry's likely lines. They can also identify temperature changes in recently overturned soil which could indicate the use of mines or other explosive hazards, as well as items left by the quarry such as urine, feces, blood, and recently discarded clothing items.

CHAPTER 10.
SCOUTING WITHIN A POPULATION

THE CHALLENGE OF SCOUTING WITHIN A POPULATION

Patrols and other activities might be conducted in populated areas that vary from small villages and towns to heavily urbanized areas, in which threats can be presented in numerous ways. Unlike sparsely populated jungles, woodland, or desert environments, the presence of humans adds another dimension for Marines to consider—particularly when individuals and established groups (i.e., networks) can easily blend in with the population. The challenge of conducting military operations in populated areas stems from a lack of understanding of the population's sociocultural aspects, dynamics, and other human factors. This gap in knowledge prevents Marines from fully appreciating and understanding what is occurring in the operational environment, which can lead to tactical mistakes. For Marines to bridge this information gap, they must understand the human behavior of the population's culture well enough to form a baseline of what is normal and what is not. This requires Marines to observe and gain an understanding of the social, cultural, and behavioral aspects of the population to identify and distinguish between typical and atypical behaviors, while simultaneously building trust and rapport with the local population. Profiling is an observation technique that helps Marines understand the behavioral norms of the people in their operational environment. Marines utilize profiling to form a baseline of individual and collective human behaviors, recognize environmental cues, and identify anomalies that drive decisions. Profiling provides Marines an effective tool to aid them in serving as proactive "predators" who are capable of hunting threats.

PROFILING

As discussed in chapter 6, operating on the left side of an incident timeline refers to taking proactive measures before an incident occurs. These include measures to identify pre-event indicators and actions to interrupt a threat's plans. Profiling is a method of proactively identifying threats through human behavioral pattern analysis, recognition, and other contextual cues, such as the geographic area and the atmospherics of a time and place. It is a tool that Marines can use to move through the decision-making process more quickly, accurately, and effectively when patrolling in populated areas. It influences actions at all levels—not only increasing individual survival, but assisting the commander in the IPB and targeting processes. Profiling enables Marines to develop a more thorough understanding of human behavior and provides the skills necessary to understand their meaning in the operational environment. These skills are effective in detecting threats hiding within a civilian population, determining typical patterns of behavior, and establishing a baseline for the people, the area, and the objects within it. By nature, people tend to

follow previously successful patterns of behavior. This allows observers to identify their intentions and predict their future actions. Profiling is a proactive effort to observe and identify indicators—based on tactics used previously—that could reveal a threat. Deviations from the normal pattern of life or typical behavior (i.e., the baseline) would lead a Marine to believe that a situation they are observing may have the potential for harming the patrol, the unit, or other people. These deviations, or anomalies from the baseline, could include persons, events, vehicles, or objects. Profiling allows Marines to stay ahead of the threat's decision-making process and to operate on the left side of the event timeline by identifying hidden threats. Through profiling, a Marine can detect a threat and make a legal, moral, and ethical decision on what to do.

Profiling Case Study: Ahmed Ressam

On December 14, 1999, Ahmed Ressam (also known as Benni Norris), an Algerian al-Qaeda member, entered the United States from Canada carrying explosives in the trunk of his rented vehicle with a plan to detonate an explosive charge on January 1, 2000 at Los Angeles International Airport. He became known as the Millennium Bomber.

Ressam entered the United States via ferry, landing at Port Angeles, Washington after having departed Victoria, British Columbia. Upon exiting the ferry, Ressam was contacted by US Customs Inspector Diana Dean as a part of the usual screening and inspection process of those crossing the border into the United States. During some basic questioning by Dean, Ressam displayed some biometric and kinesic cues (i.e., outwardly displayed physiological indicators and body language) that alerted Dean that something was wrong. Dean later described Ressam's behavior as "hinky," a term often used by law enforcement to mean shady, sketchy, or suspicious. Dean said Ressam was jittery, fidgeting, and sweating.

A search of Ressam's vehicle located powder and liquid substances concealed in the spare tire wheel well in the vehicle's trunk. When the material was discovered, Ressam, who was now out of the vehicle and in the presence of another inspector, fled on foot. He was captured after a foot chase through the streets of the surrounding area. Initially thought to be drugs, the material later tested positive for explosives. The amount and type of explosive material was estimated to be several times more powerful (possibly as much as 40 times) than car bombs seen at that time.

Ressam had been living in Canada for approximately five years under other names, including the name Benni Norris. He had supported himself through robbing tourists, shoplifting, other types of theft, and Canadian welfare. He had been arrested at least four different times, though not jailed or properly identified. During this time, he had traveled to Afghanistan, where he had trained at a terrorist training camp. Furthermore, he had been in contact with other known terrorists.

Despite the many other ways that Ahmed Ressam could have been identified and captured, it was the actions of a single customs inspector who stood between him and the execution of his plan. Diana Dean was extremely familiar with the baseline actions and behaviors of those traveling into the United States via ferry. It was by no accident that Ressam chose the last ferry of the day and his was the last vehicle to exit the ferry. Ressam, like many criminals, was attempting to exploit human behaviors and patterns. By Diana Dean's own admission, her thoughts near the end of the day were on her responsibilities as a wife and mother of two daughters once she was off work. Furthermore, it was near Christmas, and all that goes with the holiday season was also on her mind. Ressam had hoped that he would be waived through the inspection process with little difficulty by a tired inspector anxious to end the day.

Human Nature

Understanding human nature is critical when patrolling among a population. Human nature involves ways of thinking, feeling, and acting, natural biological and psychological responses, and drives. Like animals, humans are driven by, affected by, and rely on certain instincts which are uncontrollable responses in the brain. As such, humans are creatures of habit and set predictable patterns; therefore, no human behavior is completely random. Some human behaviors are related to specific cultures, while others are universal across all cultures. Once a person learns a behavior, it is extremely difficult for them to "unlearn" it. Furthermore, all humans have certain needs that must be fulfilled in order to live which drive predictable behaviors. All human behavior is prepared for in some way; all actions are preceded by observable indicators. For these reasons, human nature is the basis for profiling.

Human behavior is consistent, predictable, and reveals intentions, despite conscious efforts to conceal them. A threat displays indicators before, during, and after an action that is hostile to US forces. When patrolling in populated areas, Marines observe and interpret these indicators to mitigate threats, whether by killing, capturing, or contacting a potential threat. Similarly, threats may make plans based on what they can predict about the behavior of Marine forces. Therefore, it is important to understand how the brain works, how it influences human actions, its physiological limitations, and how they can be mitigated.

Human Responses to Fear

Human responses to fear come from the limbic system within the brain, which is the portion of the brain that deals with the key functions of emotions, memories, and arousal (i.e., stimulation). The limbic system serves as the center for emotional responses intended to keep us safe. All responses begin with a "startle" to the human brain. The startle reaction is the response of mind and body to a sudden unexpected stimulus, such as a flash of light, a loud noise, or a quick movement near the face. The reaction includes physical movement away from the stimulus, contracting the muscles in the arms and legs, blinking, and increased blood pressure and heart rate. Also, after an initial pause in breathing, there is an increased breath rate. To ensure survival, the brain responds to distress or threats using one of four responses—

- *Freeze*. The first defense of the limbic system in the presence of a danger is to use the freeze response. Since movement attracts attention, the brain tries to ensure survival in the presence of a threat by remaining still. The freezing action is sometimes called the "deer-in-the-headlights" effect. When confronted with a potentially dangerous situation, a person may freeze before taking action to assess the threat and decide what to do next.

- *Flight*. After freezing, the brain may decide that staying in place is not wise and that getting away is the best reaction. The goal becomes to escape the threat, or at least to distance oneself from danger. With fewer threats to our survival today than earlier in human history (i.e., fewer predators), flight may not be as obvious, but may take forms such as distancing oneself through actions like leaning away or turning their feet toward an escape route.

- *Posture*. Most people do not want to engage in an actual fight. People tend to avoid pain and the chance of injury. Therefore, many people will "posture" to scare or intimidate their opponent into backing down. This often involves puffing the chest up, leaning the head forward, loud taunting, extending the arms, and attempting to look bigger. Many animals use this response to ward off potential attackers.

- _Fight_. This is the brain's final and most dangerous survival tactic. If a person cannot avoid danger by freezing, fleeing, or posturing, the only alternative left is to fight. This may take the form of either verbal or physical aggression. Studying nonverbal behavior can alert someone to indications that a person intends to harm them physically.

HEURISTICS

Heuristics are mental rules that help people make quick decisions, given limited time and information; they are learned through experience or shared from others' experience. Heuristic rules are based on what indicators are important in time- and information-constrained environments, and what indicators are not relevant to decision making. Heuristics employ a search principle (knowing what to look for), a stop-searching principle (knowing when there is enough information to stop searching), and a decision principle, in which there are only a limited number of options for how to deal with the information gained. The principles of heuristics are as follows:

- _Heuristics are proactive_. Situations are often defined by uncertainty, and Marines must "go beyond the given." However, adequate information to make a truly informed decision is information rarely available; therefore, Marines must seek out cues, indicators, and anomalies to make decisions.

- _Heuristics are limited_. Any search for cues, indicators, and anomalies must be limited because there is a finite amount of time, knowledge, and attention. This means Marines must know when there is enough information to make a decision. Good heuristics use just enough information, and no more.

- _Heuristics are general and cannot be too specific_. Heuristics must apply to multiple situations and environments. Heuristics do not analyze all the information available, or force all information to be relevant.

- _Heuristics are relevant_. Heuristics ignore information that is irrelevant and focus on the most important or dangerous cues.

USING HEURISTICS IN MAKING DECISIONS

Establishing a baseline provides Marines a way to recognize inconsistent objects, human behaviors, or activities when patrolling in populated areas. The basic equation in making a decision is "baseline + anomaly = decision." This simple equation is the thread that ties all aspects of profiling together. Without establishing a baseline, Marines cannot identify anomalies by comparison. Also, when anomalies are discovered, they are useless unless Marines respond. A baseline is what is "normal" for the situation, area, and people a Marine is observing. Everything has a baseline, especially human factors in the environment. Baselines are dynamic and must be constantly updated with new information so anomalies can be identified. This process can be performed intuitively during a patrol through continuous and repetitive exposure to a situation.

Identifying Anomalies

As discussed in chapter 8, an anomaly is any change or new development in a situation that "rises above" or "falls below" the baseline. An anomaly can be something that exists now but did not before, or something which is not present but should be. While observing their environment, Marines must ask themselves, "What should be there that is not?" and "What is not there that should be?" Anomalies are classified in two ways—those that rise above the baseline and those that fall below the baseline. An anomaly above the baseline is any action that is occurring that normally does not occur, or the presence of something (or someone) that normally is not present. An anomaly below the baseline is the absence of an action that normally occurs, or the absence of someone (or something) that is normally present. Examples of anomalies could be a vehicle that appears out of place, the lack of or presence of people, or a sudden change in the mood within an area. Anomalies are identified against baselines through observing the six domains of profiling (discussed later in this chapter). Marines can utilize the techniques of profiling out and profiling in to increase their effectiveness in identifying anomalies.

Profiling Out. Profiling "out" means using profiling to eliminate from consideration the areas, vehicles, and people that are not likely to be threats. After profiling out, roughly 80% of the area being observed has normally been eliminated. However, profiling out does not mean that the Marine never has to look at the item again. Marines must reevaluate the baseline from time to time and look for changes.

Profiling In. Profiling "in" means focusing on the area, things, or people most likely to pose a threat and looking for indicators that prove or disprove the presence of threats. The presence of such anomalies indicates a potentially important change. Every anomaly must be analyzed and investigated so a decision can be made.

Context and Relevance

Context and relevance are the necessary filters by which Marines must view a potential anomaly when measuring it against the baseline. Evaluating the context and relevance of the baseline gives meaning and assists in defining the anomaly.

Context. Context is the background, environment, framework, setting, or situation surrounding an event or occurrence. An event that occurs in one location (i.e., in one context) cannot be assumed to apply to the same event in another context. The context defines the significance and helps Marines interpret their observations. For example, if a Marine observes a person standing with their arms crossed across their chest in cold weather, that person may be demonstrating that behavior because they are cold and trying to stay warm. However, if that behavior is observed in a different context, such as a hot desert environment, the potential reason for that gesture is likely different.

Relevance. Relevance is the relation of an observation to the present situation. Marines must have context and relevance to detect an anomaly accurately. In determining threat behavior, something a Marine observes may be an anomaly for a particular situation, but is not relevant for the purpose of predicting threat behavior and mitigating a threat's actions. By determining whether there is a legitimate purpose for the person or object to be in this location or conducting this activity, the relevance of the observation can be determined. For example, desks in a classroom serve a purpose as places for students to take notes, making them relevant to that situation. However, a desk in the middle of a hallway serves no purpose and could be considered an anomaly.

Making a Decision

A decision of what to do is made based on the perceived anomaly detected—kill it, capture it, contact it, or (if it does not fit one of these choices) take accurate notes, continue to observe, and let it go. A Marine must immediately make a decision what to do when an anomaly is identified. Once a baseline is established and relevant anomalies are detected, a Marine must decide what to do about them. The common language used in profiling allows a Marine to report and articulate their decision and the subsequent actions taken. To facilitate rapid decision making on the battlefield, the options available to Marines when they identify an anomaly are limited to killing the anomaly, capturing the anomaly, contacting the anomaly, or leaving the anomaly alone. Furthermore, the decision has to be legal, moral, and ethical (decision making is discussed further in appendix H).

Rule of Threes Decision Methodology. In most cases, a single anomaly is not enough to decide what to do, unless it is an immediate threat to the Marine (i.e., the inherent right to self- defense). Because the body language that a person uses may have multiple meanings, three anomalies are usually needed. When three anomalies are detected, a sound decision can usually be made whether to kill, contact, or capture the potential threat, or to leave it alone (see figure 10-1). Marines should attempt to read anomalies in clusters—meaning that three or more anomalies are enough to make a reasonable decision. Once a cluster has been identified, a conclusion may be developed and a decision made. However, in situations where a potential threat displays hostile intent or actions (i.e., confirming that it is a threat), a decision should be made immediately, regardless of the number of indicators present.
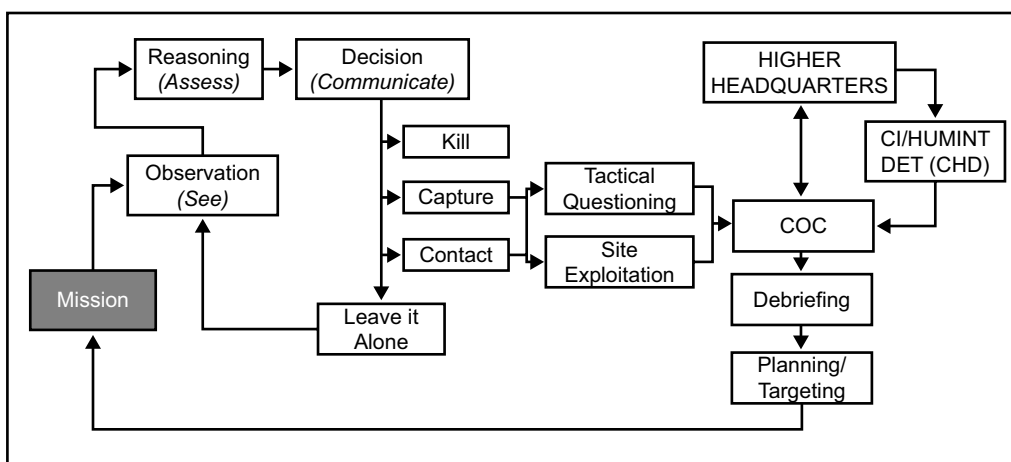
Figure 10-1. Detected Anomaly Decision-Making Cycle.

Kill. The decision to kill the threat is made when the Marine reasons that the threat is so immediate and deadly that terminating it is the only thing that will prevent themselves or other Marines in the unit from being killed. This does not mean that the Marine's first response is the use of deadly force, but that the Marine prepares to use deadly force if required, based on the ROE and requirements for escalation on the force continuum. If the potential threat demonstrates actions that are in line with the current ROE, the Marine will respond more quickly by beginning the decision tree with "kill," as opposed to beginning with "leaving it alone" and having to escalate the response.

Capture. The decision to capture the potential threat is made when the Marine reasons that the individual or object does not warrant a response of "kill," but is worth capturing for questioning and exploitation. The "capture" decision may also be made if the Marine identifies an individual as a person of interest on the immediate detention list.

Contact. The decision to contact the potential threat is made when the Marine's suspicions have been aroused, and they decide that the individual has displayed certain behaviors (or an object has displayed certain indicators) that require further investigation. Contact can be made in various ways. Maintaining visual observation for a period of time is a form of contact. Physically approaching an individual or group and conducting tactical questioning to gain more information is also considered contact. Additionally, if the anomaly happens to be a place, vehicle, or object, the Marine can conduct a search or use a camera to record information. When the potential threat is a suspected IED, the "contact" response refers to conducting the immediate action drill for visual contact with an IED (described in chapter 4) to confirm whether the suspected device is actually dangerous and to respond accordingly. This may include other forms of contact described above, such as conducting tactical questioning of people in the area, searching, and taking photographs to record the scene.

Leave it Alone. The decision to leave the anomaly alone is made when, after observation, the Marine reasons or is directed that the individual or object in question has no strategic or tactical value or does not pose a threat, and therefore may be left alone. At this point, the observation and decision-making process is reset.

Legal, Moral, and Ethical Implications in Making Decisions. A Marine trained in profiling will be able to identify anomalies and make decisions more quickly. The ability to cycle through the decision-making process at an accelerated rate must be tempered with an understanding that all decisions must be legal, moral, and ethical. The identification of an anomaly is not an excuse to determine that a target must be killed. The anomaly must be analyzed within the context and relevance of the situation, as well within the legal, moral, and ethical parameters.

Legal Parameters. Legal parameters involve conforming to what is permitted by applicable laws and orders, including the law of war, the ROE, and the standing requirements for escalation along the force continuum. Legal parameters are mandatory, and are not flexible.

Moral Parameters. Moral parameters pertain to a sense of what is right or wrong, and are founded on the fundamental principles of conduct rather than on legalities or customs. They can be individual personal principles or rules of conduct established for a group of people (e.g., a religious group, the US military as a whole, or a specific command).

Ethical Parameters. Ethical parameters involve conforming to society's rules, standards, and expectations for proper conduct or practice. These include the standards of a profession, such as the expectations placed on Marines and other Service members representing the United States.

Ethics are not the same as following the law (i.e., legal). Ethics refer to well-founded standards of conduct that prescribe what a person ought to do, usually in terms of rights, obligations, benefits to society, fairness, or specific virtues. Ethics also relate to standards based on the virtues of honesty, compassion, and loyalty.

THE SIX DOMAINS OF PROFILING

The six domains of profiling are used to study human behavioral characteristics. The more indicators that are observed within each domain, the stronger the evidence is to assess the meaning of what is being witnessed. One stand-alone cue from a single domain is rarely strong enough to accurately assess human behavior. The domains allow Marines to observe specific characteristics about an individual or groups of people to make assessments about what is happening and what should be done. The six domains of profiling are:

- *Biometric cues*. Uncontrollable responses to stress.
- *Kinesics*. Body movements (i.e., body language).
- *Proxemics*. A person's use of the space around them.
- *Geographics*. A person's relationship to the environment.
- *Iconography*. Symbols of ideology and affiliation with specific groups or beliefs.
- *Atmospherics*. The collective mood of the population.

Biometric Cues

Biometric cues are read as interpretations of physiological and biological reactions to a stimulus or situation. These reactions are automatic, uncontrollable, and unlearned. Because these reactions involve the nervous system, Marines can observe the resulting cues that occur outside the body. Understanding these indicators can help interpret a person's intent or truthfulness. These responses can be seen in several ways, such as—

- Reddening of the face (i.e., blushing).
- Paling and or blanching of the skin.
- Increased heart rate.
- Pupil dilation.
- Blinking.
- Dry mouth.
- Goose bumps/hair standing up.
- Uncontrollable shaking.

While it would be difficult—if not impossible—to see certain biometric cues from a long distance, the ability to observe biometric cues during close interactions with individuals or groups, including tactical questioning, can prove vital in helping to determine the feelings and/or intentions of those being observed. Additionally, when subjects attempt to compensate for their biometric cues, they result in enhanced or pronounced unnatural movements or behaviors that further identify them through anomalies. Biometric indicators must be viewed in the proper context and relevance, as well as in conjunction with the other profiling domains.

Kinesics

Kinesics is the interpretation of body movements, gestures, postures, and facial expressions. People give and respond to thousands of nonverbal messages every day and react to wordless messages emotionally, often without understanding why. People notice minute details about others because these details reveal how they relate to one another, who they think they are, and how they want to project who they are. Kinesics allow a Marine to understand a person's emotional connection to a person, place, or object. Nonverbal indicators can have multiple meanings. Marines must observe several indicators that allow them to make an accurate conclusion about a person's emotions or intentions.

Principles of Kinesics. There are several basic principles that aid in the understanding, and application of kinesics.

Be an Acute Observer. Just as careful listening is critical to understanding what someone else is saying, careful observation is critical to understanding another person's body language. Congruence or contrast between the person's nonverbal communication and their verbal communication should be looked for. When a person sends contradictory verbal and nonverbal messages, these are called "kinesic slips."

Context. The context of a person's body language is important to understanding what they are communicating. A person's shaking hands after a car accident may mean something different than a person's shaking hands who is on trial. Additionally, the same movement or gesture may communicate different things in different cultures. This is a reason why establishing baselines is important.

Baseline Establishment. When interacting with others and attempting to understand their body language, it is important to understand the baseline behavior that can be expected for their culture, as well as the baseline behavior of the individual (if that has already been established). How they sit, stand, and use their hands should be observed, as well as other mannerisms. If a person always exhibits a particular gesture or movement (e.g., touches their face or crosses their arms), it may not necessarily be significant. However, if it deviates from their baseline behavior, it may be significant.

Clusters. Clusters of behaviors should be watched for. A Marine's assessment of an individual's nonverbal behavior should not rest on one single gesture, movement, or behavioral cue. Nonverbal communication works in a similar way as tracking (each print relates a "word," a few prints relate a "sentence," and an entire track relates a "paragraph"). One indicator is only a "word," but a few indicators are a "sentence."

Kinesic Clusters of Behavior. While there are countless types of possible kinesic indicators, Marines can speed up their decision making by categorizing all body language into three functional areas. These functional areas are designed to simplify the language and terminology used to classify and communicate the behavior of the people surrounding us. When clusters of cues in these functional areas are identified, the Marine must determine whether they fit the baseline or not to determine whether the person is an anomaly. When looking for anomalies in regards to body language, Marines should ask themselves, "what has been added to this situation, and what is missing from it?" Kinesic cues may be innate, learned, or a mix of both. Some

nonverbal behavior is universal, while others are cultural, and must be viewed in the proper context. This makes establishing a baseline based on the particular culture critical to interpreting body language accurately. Once a baseline is established, all gestures, postures, and expressions that people exhibit are grouped into the following three clusters of behavior, depending on whether the individual is acting—

- Dominant or submissive.
- Comfortable, passive, or uncomfortable.
- Interested or uninterested.

Dominant or Submissive. This functional area is determined by the amount of physical space a person takes up. A person who exhibits dominant cues assumes postures and gestures that consume more of the space around them as a territorial display of ownership. This may be driven by legitimate legal or social authority, or may be a natural unconscious reaction to perceived social standing. A person often postures before a fight. When it is not in a person's best interest to engage in a fight, they may try to intimidate the other person (or people) before a fight begins to diffuse the likelihood of one happening. Submissive behavior is the exact opposite, including the absence of any fight-related cues. People who are acting submissively try to make themselves appear as small as possible. They will retract their arms, they will pull their legs together, and they will seek stability. People feeling submissive will attempt to take up less space and withdraw their limbs closer to their bodies. Submissive cues are the acknowledgment of another person's higher social or professional position or the absence of the fight response.

Comfortable, Passive, or Uncomfortable. This functional area is determined by whether a person perceives a threat. A person who is acting uncomfortable exhibits signs of anxiety, agitation, or nervousness. These cues of discomfort may serve as a precursor to the fight or flight response. While it is possible for a person to control these signs of anxiety or discomfort, they often exhibit pacifying (i.e., calming) behaviors while doing so that can give them away to a keen observer. A person who is feeling comfortable and relaxed does not appear prepared to defend themselves even if a threat presents itself. Furthermore, they do not display the nervous cues that indicate the person perceives threatening objects or people. When a person perceives a threat, the body generates a visible stress response. When people try to suppress this response, their bodies display pacifying behaviors. A person looks different when they are comfortable, feel safe, and are confident, as opposed to when they are uncomfortable, lack confidence, and feel nervous, afraid, and anxious, even if they are trying not to look that way. A few simple examples of common pacifying behaviors include—

- Touching the neck (i.e., either the back, sides, or above the Adam's apple).
- Men cupping their necks just below the chin.
- Women playing with a necklace.
- Rubbing the forehead.
- Touching the face.
- Exhaling with puffed cheeks.
- Adjusting a tie or other article of clothing.
- Excessive yawning.

- Leg cleansing—a person may place their hands palm down on top of the legs and slide them toward the knees.

- Ventilating one's collar.

Interested or Uninterested. This cluster is determined by where a person's focus and attention are oriented. A person who is interested in something demonstrates cues associated with mission lock or focus. If they are interested in a person they are talking to or an object they are looking at, they will show interest in it. A person who is uninterested will demonstrate cues that they are no longer focused on a conversation, area, or object. When contradictory cues present themselves, Marines should try to determine why their body language is not synchronous.

Recognizing Kinesic Cues. An individual's body language can be observed at any time while interacting with them or observing their behavior in public. Most often, people cannot control their body language, and are unaware that they are exhibiting certain behaviors. The harder they try to hide it, the more evident their body language often becomes. Body language— particularly facial expressions—can be more readily observed during tactical questioning. The nonverbal cues that are important for Marines to observe are the gestures, expressions, and postures that may communicate threats.

When observing body language, a Marine should always start by observing the hands (to determine a potential threat), then move to the feet and scan upward. While the feet are one of the most "honest" parts of the body and usually indicate where a person's attention is focused, the hands are the body's main weapons and are the most dangerous, and should therefore be evaluated first. While the face is also important to understanding a person's nonverbal communication, many people (e.g., actors) can control their facial features to purposely deceive others or hide their intentions and emotions. This is the meaning behind the phrase, "poker face." Therefore, the body language cues from other parts of the body are more trustworthy as indicators. The issues discussed below can assist Marines in reading each part of the body.

Cues in the Hands and Arms
People frequently use their hands in different ways to communicate with each other during social interactions. These nonverbal cues from the arms and hands can be either conscious or subconscious, and can often be culturally dependent. A few common examples of this include:

- *Nervous hands*. Since the hands and fingers are designed for fine, precise movements, shaking hands may indicate negative feelings (e.g., fear or stress). This happens because the limbic system sends hormones, such as adrenaline, which cause the hands to shake. This may also happen when people feel excited and happy. However, some people normally have shaky hands; therefore, it is important to observe whether shaking hands represent a change in a person's normal behavior.

- *Arm withdrawal*. People tend to withdraw their arms toward their bodies when they are afraid or upset.

- *Isolating the arms*. Putting the arms or hands behind one's back may be a signal of arrogance or a feeling of "higher status," or a signal that a person does not want to be touched or approached.

- *Hands on the hip*. This gesture is often used by people with authority (e.g., police and military leaders) and is a powerful territorial display of dominance. This is usually done with the

fingers toward the front and the thumb to the rear, though a less authoritarian posture with the thumbs to the front may be used.

- *Hooding*. Usually done when seated, a person may place their hands behind their head and interlace their fingers, with their elbows up and out. This is a dominant gesture that tells others, "I am in charge here."

- *Pointing*. Pointing to another is typically a sign of dominance in most cultures, but can also be viewed as very offensive—especially to a recipient of the pointing.

- *Thumbs*. Displaying the thumbs up or outward is often a sign of confidence, whether this is the "thumbs up" sign or keeping the thumbs exposed when the rest of the hand is in a pocket or grabbing a lapel. Hiding the thumbs may express doubt or lack of confidence.

- *Covering the genitals*. Covering the genitals with either the hands or an object (e.g., a hat) commonly indicates that a person may feel insecure.

- *Frozen hands*. Hand displays of low confidence include "frozen hands" (i.e., not moving the hands or gesturing), hand wringing, rubbing or stroking the hands, or touching the neck.

- *Hand steeple*. Hand displays of high confidence include "steepling" the hands and interlocking the fingers with the thumbs sticking up.

- *Palms*. Palms-down gestures project authority, while palms-up gestures project a more submissiveness, non-threatening demeanor, and can also show that the person has no weapons. Rubbing the palms together indicates a positive feeling or expectation.

- *Hands covering the face*. People who hear bad news or witness a horrific event often cover their face with their hands to symbolically stop themselves from seeing or hearing the awful news. When a child tells a lie, they often cover their mouths with one or both hands as if trying to stop the deceitful words.

Cues in the Feet and Legs

The feet and legs are important indicators because they are the primary means by which people escape and survive. The brain sends signals to the feet and legs depending on the situation; a person's lower limbs will react to both positive and negative emotions. Examples of kinesic cues from the feet and legs and their meanings include:

- *Happy feet*. Excessive movement of the feet may signal high confidence. This must, however, be distinguished from nervousness and impatience, since many people bounce their feet when feeling those emotions.

- *Turning the feet toward or away from something*. People tend to turn their feet away from things they do not like, while the body remains facing toward the object or person. This may indicate a desire to leave, or a sign that the person is disengaged from the conversation or situation. If a person's body is facing toward a Marine interacting with them but their feet are facing away, the Marine should ask themselves why.

- *The knee clasp*. A person sitting who places both hands on their knees may be indicating a desire to leave. This is usually combined with leaning forward and shifting toward the edge of the chair.

- *Leg splay*. The splaying or spreading out of the legs is an authoritative and territorial indicator, and people may do this when they feel stressed, upset, or threatened (i.e., posturing).

- *Crossing legs while standing*. People normally only cross their legs while standing when they feel comfortable, safe, and confident. If a person uncrosses their legs after a change in the situation, it may indicate that the person no longer feels safe. This is a sign that the limbic system is sending a signal to be prepared to deal with a potential threat. Additionally, when two or more people are standing around, if they have their legs crossed, they will tend to lean toward the person they favor.

- *Playing "footsie."* Couples often display signs of affection, such as "playing footsie," as a sign of courtship and mutual attraction. A change in this behavior may signal that one or both people have become uncomfortable. Additionally, the direction of crossed legs may be significant. An individual crosses their legs toward another person when they are on good terms. Repositioning the legs, to provide a barrier, may indicate "blocking," an attempt to distance or protect oneself from the other person.

- *Locked feet*. When sitting, people often lock their feet around the legs of their chair when they feel uncomfortable or insecure. This is part of the freeze response, and indicates that the person is feeling troubled.

- *Figure four leg clamp*. In this position, a person is sitting with one leg crossed on their lap (ankle on the knee), while holding that leg with their hands. This is a defensive sign of an individual who is resistant to being influenced.

- *The leg twine*. This gesture is almost exclusively used by women, and is a trademark of shy and timid women. When a woman crosses one knee over the other, the top of one foot locks around the other leg to reinforce an insecure attitude. This shows a woman has retreated "into her shell" like a tortoise, despite how relaxed her upper body may appear.

- *Foot pointing*. Not only do the feet serve as pointers, indicating the direction in which a person's mind is going, they also point at people who they find the most attractive or interesting.

- *Walking speed and gender*. The speed at which a person walks may be significant. A person walking quickly is most likely determined, and is walking with a goal (e.g., someone who does not want to be late for an appointment). However, a person walking slowly may be contemplative or attempting to assess their surroundings. Many criminals have been spotted because they walked too slowly in an effort to "fit in" and act inconspicuous, which instead made them stand out from the baseline. It is normally easy to tell the difference between a man walking and a woman walking based on which part of the body sways. When men walk, they generally sway their shoulders, while women generally sway their hips and take smaller, more graceful strides.

Torso Cues

The human torso is another valuable source of cues and can be frequently observed during contact. Examples of kinesic cues from the torso and their meanings include:

- *Torso lean*. People generally lean toward a person who makes them feel comfortable and away from a person who make them feel uncomfortable. Shifting the body's angle only a few degrees may indicate negative feelings.

- *Ventral denial and fronting*. A person's ventral side is their front side. This includes many important and vulnerable areas (e.g., face, neck, heart, and genitals). A person who feels safe and relaxed may turn their ventral side toward those who make them feel safe. A person will

block (i.e., shift or turn their front sideways from) a person who makes them feel uncomfortable or unsafe.

- _Torso shield_. Men and women generally expose their torsos to people who make them feel safe, but block and protect their torsos when they feel unsafe. Blocking may take the form of crossing one's arms or holding something in front of them (e.g., a purse, jacket, or books).

- _Feeling cold_. People who are uncomfortable often complain of feeling cold. This happens because the blood is channeled away from the skin and toward the large muscles and limbs, in case those muscles and limbs need to be used to escape or fight.

- _Torso splays_. Splaying one's legs out while sitting is a sign of comfort and dominance.

- Puffing Up. Puffing up the chest is an attempt to posture and establish dominance, as is often seen in people who are getting ready to fight.

- _Heavy breathing_. People under stress may often breathe heavily and rapidly. This is an indication that the limbic system is trying to take in as much oxygen as possible.

Proxemics

Proxemics is the interpretation of spatial relationships to determine the relationship between a person and other people, objects, and events. Proxemics are important in establishing baselines. Simply stated, proxemics deal with a person's proximity (i.e., distance) to and from other people based on physiological, sociological, and physical principles. This happens both consciously and subconsciously. Understanding proxemics can assist Marines in identifying the dynamics within a group of people, understanding the norms of the operational environment, making decisions, and maximizing standoff when necessary. This occurs within the context of cultural norms, tactical considerations, and psychosocial factors in order determine the dynamics of human interaction and reactions to their surroundings. The types of information that proxemics reveal include:

- Whether or not people know each other.
- Whether a meeting was planned or unplanned.
- Whether a group or network is open or closed.
- Whether or not someone is viewed as a threat to another person or group.

Social Distances. Social distances are determined by the measure of space or separation between individuals or groups, and are caused by perceived or real differences between them based on well-known social categories. Social distances can be observed across a variety of social categories, including class, race, ethnicity, culture, nationality, religion, gender, sexuality, and age. Social distances vary by culture and follow different sets of spatial relationships. For example, American, Canadian, British, and Nordic cultures tend to keep greater distances between people. Conversely, Latin American and Arabic cultures have much closer distances. Marines have their own culture, which similarly prompts them to position themselves at certain distances from others, depending on many factors, the most important of which is the degree of threat others may pose. Within all cultures, there are generally four zones of social distance:

- Public distance.
- Social distance.
- Personal distance.
- Intimate distance.

A person's nonverbal communication changes as people move into and out of these different distance zones. Establishing a baseline for the four relative distances is an essential element to understanding culturally specific cues for an operational environment. Furthermore, while people who know each other well enough to communicate at closer distances (e.g., personal or intimate distance) may be comfortable communicating at further distances, the reverse is not true. People who are unfamiliar or only cordially familiar with another tend to become uncomfortable and show "uncomfortable" cues if the other person tries to interact at a closer distance than they feel is appropriate. This can even be seen as a threat. This is referred to as a proxemic violation. Relationship assumptions based on social distance should be confirmed with other kinesic cues.

Public Distance. Public distance is typically used with strangers. When people walk in common areas and want to maintain public distance, they leave space between themselves and the other non-threatening and unfamiliar people walking near them. When Marines patrol further from the civilian population, they feel a higher degree of safety from threats. However, this may not always be possible when patrolling in populated areas, which increases the potential for threats and discomfort when public distance is encroached upon. When Marines patrol, they take greater notice of people within the public distance zone, and the readier they must be to contend with threats.

Social Distance. This is a comfortable distance for unfamiliar people who are standing in a group, but maybe not talking directly with one another. For example, people waiting in a doctor's office waiting room who are unfamiliar with each other prefer to keep one or more empty chairs between themselves and others, if possible. With this distance, conversations can be held without having to shout while still keeping others at a safe distance. Marines build a connection with others at social distance. An example of this is when greeting people on patrol to establish initial rapport and familiarity.

Personal Distance. Personal distance is typically used for interaction among people who know each other well and are on good terms (i.e., friends and family). Within the personal distance zone, conversations are more direct. This is a good distance for two people conversing about personal subjects. Marines on patrol may use the personal zone when conducting key leader engagements or interviewing people during tactical questioning.

Intimate Distance. Intimate distance is reserved for very close relationships. Personal exchanges at intimate distance are often characterized by intimate and very familiar body language with observable facial expressions. In most western cultures, intimate distance is most common between people in romantic relationships, and allows for embracing, touching, kissing the face, or whispering. This distance may also be used between close friends. However, when one person enters the intimate zone of an unfamiliar person, it can be perceived as a threat. The proxemic violation of taking away another's intimate space may be either intentional or unintentional. Intentional invasions of the intimate zone provide a nonverbal signal that the invader is more powerful and may enter it whenever they desire. The relationship of people interacting at intimate distance should be confirmed by observing a cluster of "comfortable" kinesic cues. A cluster of "uncomfortable" cues may imply that the people do not have a legitimate intimate relationship.

Proxemic Push, Pull, and Distance Violations. Proxemic pushes and pulls are changes in a proxemic baseline between two or more people. This is the act of someone being "pulled" into a closer distance zone, or being "pushed" into a distance zone with greater separation because they do not

warrant access into the baseline zone. Generally, people unconsciously keep to the accepted proxemic distances. However, there are certain times and situations when the proxemic rules are violated, such as in elevators, at sporting events, or in food serving lines. These are described as proxemic violations. Proactively observing and identifying proxemic violations aids in detecting possible pre-event indicators of potential attacks or other threats.

Proxemic Push. Proxemic push occurs when unfamiliar people meet or are near each other and naturally drift apart, creating distance from one another. Proxemic push tends to occur in potentially threatening or uncomfortable situations. Proxemic pushes may occur because of fear, a desire for safety, a perceived threat, distrust, disinterest, or a lack of familiarity between the parties. An example of this is that when Marines patrol in a population that is unsupportive of their presence, people may walk across the street or turn and walk away to avoid them. The proxemic push may be due to fear or a feeling of dislike for the Marines, or due to a fear of others' reactions if they are seen acting supportive of the Marines. Another example may be observed on elevators when two people enter, say nothing, select their desired floor button and move as far away from the other as possible while staring at the numbers as they ascend floors.

Proxemic Pull. Proxemic pulls may occur because of attraction between the parties, a need from one or both parties, curiosity, or a pre-existing relationship, or familiarity between the parties involved. Proxemic pull tends to be associated with non-threatening situations, and has to do with feeling comfortable with people one does not know well. An example of a proxemic pull may be seen with a homeless man at a stoplight begging for money. People who avoid eye contact with him display a proxemic push to avoid him. However, if a person makes eye contact with him, it is typically perceived as an invitation for him to approach (i.e., proxemic pull). Another example may be seen when someone is walking and holding a map, appearing lost. Some people walk by giving uninterested cues until one person makes eye contact, at which time the lost person feels comfortable asks for assistance.

Proxemic Advantages. Use of proxemics provides certain advantages to Marines patrolling in populated areas.

Negating Skill. Proxemic zones and changes in the proxemic baseline can occur because proximity negates skill—the closer a threat is to a Marine, the less skill the threat needs to harm or kill them. When a person is unknown or has not yet been determined to be non-threatening, Marines desire to keep them at further distance to improve the ability to defend themselves. By observing from a greater distance, Marines can increase the distance (in both time and space) between themselves and a potential threat. This gives Marines more time to make decisions.

The following are a few examples of when this is useful:

- When a threat is perceived, the natural inclination is to move away from it. Manipulating the time and distance gap by moving away (i.e., proxemic push) from the perceived threat provides standoff and creates valuable time for the observer to react to a situation.
- When a threat is not perceived, or when in a comfortable environment, the natural inclination is to approach the situation (i.e., proxemic pull), diminishing standoff and reaction time.

Reducing Reaction Time. Marines who lack situational awareness are at a potentially fatal disadvantage to anyone nearby with the intent to injure or kill them. A Marine's level of alertness can mitigate this effect to an extent. A Marine's reaction time to an attack is reduced by the close proxemic distance of the attacker in relation to themselves.

Affecting Accuracy. Proximity can either increase or decrease the effective options for an attacker or a defender. In the book, Just 2 Seconds: Using Time and Space to Defeat Assassins, by Gavin de Becker, Thomas Taylor, and Jeff Marquardt, the authors concluded that attackers who fire handguns at targets within 25 feet usually hit their targets. Conversely, attackers who fire handguns at targets farther than 25 feet away rarely hit their targets.

Identifying leaders. A combination of proxemic and kinesic indicators can allow Marines to identify a key leader within a group of people they are observing. These indicators may include mimicry, adoration, direction, and entourages. When taken collectively, they may identify the key leader in a group. A simple acronym for this is "MADE," which is described as follows:

- *Mimicry*. This is when one individual takes on the attributes of another individual by mirroring and matching their characteristics. It may be either a conscious or unconscious act, and occurs because the accepted leader's status is noted and others attempt to attain the same status or seek the leader's approval.

- *Adoration*. Adoration is the outward sign of affection towards an individual by another individual or group. Adoration is commonly associated when a person or group holds an individual in a higher status. Adoration can be either positive by showing respect and gratitude, or negative through the display of fear towards a superior. Examples of this include a group of Marines coming to attention when a senior officer walks into the room or showing respect to senior Marines by addressing them by their rank and from the position of attention or parade rest. Criminal organizations are often established using similar hierarchical structures.

- *Direction*. The leader of the group will often continually give direction to subordinates. These directions may be subtle or overt, and conscious or unconscious. This includes verbal orders, gestures, the pace and direction of movement, and the effect on the general atmosphere. Subtle indicators could include head nods or slight hand gestures that would not naturally attract Marines' attention.

- *Entourage*. When an individual is accompanied by one or more people who tend to show subordination or submissive behavior, those people are considered the entourage of the person in charge. This relationship is beneficial to all parties. The leader provides a benefit to the subordinates in the group, such as leadership, connections, protection, or resources. The subordinates provide a benefit to the leader in the group, such as security or executing tasks directed by the leader. Examples of an entourage include a commander and their staff or the President and their Secret Service detail.

Geographics

Geographics is the study of the relationship between people and their physical surroundings. It combines two specific items—the geographic terrain and the inhabitants in the area. People who are familiar with the area they are in tend to behave (e.g., dress, act, walk, and drive) differently than those who are unfamiliar. Geographics help classify areas as either "habitual areas" or

"anchor points" and identify the "natural lines of drift" (i.e., pathways) through the area. Studying geographics assists in developing a baseline and refining the IPB. The areas are identified based on people's behavior, not on the locations of the areas themselves. People communicate things about themselves based on how they mark, alter, treat, and take care of their geographic surroundings.

Perhaps the most basic shortcut or heuristic in geography is known as the least effort principle— a person who is given various possible routes of movement will select the route requiring the least effort. When multiple destinations, targets, or objectives are available, the least effort principle suggests that the closest one will typically be chosen. Geographic familiarity allows people to be more likely to commit crimes and acts of terrorism in areas where they are very familiar with or have thoroughly reconnoitered. Humans are by nature territorial, which means that their behavior is characterized by a sense of identification (i.e., belonging or ownership) to an area and a desire to defend the territory against "invaders." Outsiders may violate a person's or group's territory by using or entering the territory without permission, attempting to take all or a part of the territory, or by physically defiling it (e.g., graffiti). Insiders respond to violations by prevention (e.g., displaying markers, boundaries, or warnings) or retaliation.

Elements of an Area. A habitual area is a place where most people feel comfortable going without reservation. The actions of the people in the area create the open and accepting environment, not the physical structure itself. Habitual areas are areas where there is a proxemic pull between people in normal circumstances. Habitual areas fill a need for those who go there. Examples include a market place fills tangible needs such as food, water, or other goods, or a park or beach that fills an intangible need such as interaction with other people.

An anchor point is a location where only certain individuals within a given group or network would frequent without reservation. Individuals outside this group or sect would not be welcomed into the area because they have not met the pre-established criteria for access. It is an area in which an individual from a particular group or sect has established as their own and can associate and maintain a level of comfort and security. Because anchor points offer those who have access to them a level of security and comfort, anchor points will often be defended against an invasion or violation of that space. Just as Marines may employ a defense in depth, anchor points often have a buffer zone around them allowing for greater standoff and a higher degree of protection. Anchor points can be permanent structures, such as a bar controlled by a motorcycle gang; they can be temporary, such as a street corner that has a number of homeless people on it; or they can be mobile, such as a fire truck driving down the street with the siren on. For those people in the group or sect who are allowed into the anchor point, there is a proxemic pull from the anchor point; however, for those who do not have access, there is a proxemic push away from it.

While friendly forces, threats, and networks create anchor points where they feel safe and secure, a unit's collection and targeting efforts can be focused on threat anchor points. Removing the perception of security for threat leadership in their safe havens allows for directed targeting the threat leadership. Marines who are deployed often create anchor points. The battalion command post is a permanent anchor point; only those personnel with the proper credentials are allowed in. A platoon using an abandoned building as a patrol base for a short amount of time creates a temporary anchor point. As soon as the platoon no longer uses that

building as a patrol base, it returns to its status as a habitual area. A Marine unit patrolling through the market place creates a mobile anchor point, as their security posture may proxemically push the locals away from the patrol.

Identifying Anchor Points. Anchor points may exhibit graffiti or other nuances, such as flags, to identify specific groups, gangs, organizations, or networks. Some characteristics for identifying anchor points include:

- Anchor points may be located on key terrain which provides a defending force a significant tactical advantage.
- Anchor points can be static or mobile for either criminals or insurgents.
- Anchor points are likely to be heavily defended when attacked.
- There is usually a buffer zone centered on a group's anchor point. Within this zone, things that could be viewed as potential targets are viewed as less desirable because of the perceived level of risk associated with attacking them too close to home. This does not mean that they will not defend their anchor point, just that they will not purposely conduct attacks or crimes near their anchor point.
- Many insurgent forces operate with an unmarked boundary that is constantly observed and heavily defended. Opposing forces that cross this boundary are immediately engaged or ambushed.

Natural Lines of Drift. A natural line of drift is the path across terrain that is most likely to be used when someone is going from one place to another. They are the paths of least resistance— those that offer the greatest ease or highest speed while considering obstacles such as rivers, cliffs, or dense brush, as well as the mode of transportation (e.g., pedestrian, automobile, bicycle, or horse). In the profiling domain of geographics, the principle of natural lines of drift is helpful in determining the everyday routine of people in an area. It may also help to determine who is familiar with the area and who is not. It can also serve as an alert to an anomaly or atmospheric shift when people start or stop using the natural lines of drift in an area. The knowledge and application of natural lines of drift are consistent with the basic tenets of establishing a baseline and identifying anomalies. Once a baseline has been established, a deviation from a habitual path of travel would be an anomaly. As such, and in accordance with the rule of three's methodology, a deviation would require a decision on the part of the Marine who observes it.

Historical Case Study: Now Zad

A study on insurgent tactics between 2005 and 2008 in Southern Afghanistan concluded that most of these ambushes occurred in certain areas; there were lines past which a patrol would almost certainly be attacked (i.e., anchor points). The Taliban often used the same ambush sites over and over, particularly if the ambushes were successful (i.e., habitual areas). It was rare for insurgents to fight in places not of their choosing. Taliban anchor points were often protected with sentries and forward observers (i.e., a form of defense in depth). In some areas where the Taliban were particularly strong, they built static defensive lines. North of Now Zad, insurgents built multiple layers of defense to prevent coalition forces from getting near their base areas, specifically their IED factories.

Iconography

Iconography is the visual representation of a person's beliefs (i.e., ideology) or affiliations (i.e., association with groups). Iconography refers to the symbols, images, markings, and writings that people and groups publicly display to communicate meaning. Cultural elements of iconography include flags, color, graffiti, jewelry, tattoos, logos, pictures, names, words, or other images that hold cultural significance or special status within the group. Designed to communicate association to the outside world, this form of communication can be overt or subtle, public or private. All iconography must be interpreted within its own cultural context and baseline. The context of a piece of iconography includes its history, importance, popular use, cultural setting, and context in place and time. While iconography is not always present, and is an element of human behavior that can be consciously controlled, it should be analyzed for the meaning it intends to communicate whenever it is displayed. Changes in iconography may indicate shifts in beliefs, the formation of separatist movements or branch organizations, or the presence of new networks which may require further investigation. The more common displays of iconography include symbols, flags, signs, body markings, artwork, graffiti, clothing and grooming, and colors.

Symbols. A symbol is something that represents or stands for something else to a particular group or culture. Symbols can be used on flags, clothing, or body markings. They can also be used in writing, decoration, and artwork.

Flags. A flag is used as a symbol, signaling device, or decoration to symbolize a group or its ideology. Flags are usually distinctive in color, shape, and design. Nations, militaries, militias, and groups use flags to represent their history and beliefs. Individuals display these flags to show their affiliation to these particular groups. Flags can also be used as signaling devices for military operations, formations, or public announcements. A flag's display or lack thereof may denote more particular meaning with regard to the cultural beliefs. Additionally, a person's or group's cultural beliefs can sometimes be determined through the way a flag is displayed, such as the height at which it flies, how and where it is displayed, or whether it is treated with respect.

Signs. A sign is a display intended to convey meaning. Signs can use colors, shapes, texts, and symbols to further enhance their message. They can represent an area, a direction, a warning, or a boundary. Signs can also include posters or bumper stickers on personal objects, such as a vehicle.

Body Markings. A body marking is any coloring, scarring, or embedding of foreign objects on the body that may represent identification, decoration, or religious belief. These markings can include body piercing, tattooing, branding, and maiming. Tattoos often signify one's affiliation with a belief or organization.

Artwork. Artwork is the illustration, photograph, or other non-textual material presented to display the mindset of the artist or a group of individuals.

Graffiti. Graffiti is marking an image or text on a public surface or another's property. Graffiti can be legal or illegal and displayed publicly or privately. Graffiti and artwork can also come in the form of murals that denote the beliefs of a group within the area. Graffiti can be the display of a group or gang, or its members within the area, or it can represent the boundaries of a group. The use of graffiti and artwork can include symbols and colors to further enhance their meanings.

Clothing/Grooming. The use and wear of clothing can represent a lifestyle, economic/social status, or cultural belief of an individual or group. Clothing can also be used by militaries, groups, and gangs to represent unity.

Colors. Colors can be used to signify and/or enhance the meanings in a flag, artwork, clothing, body markings, or any other personal display. Certain colors have also been used to create a psychological effect (e.g., the use of certain colors in advertisement to create a calming or an agitating effect). Color often has symbolic meaning for a culture or group; however, colors symbolize different things for different cultures. The Marine Corps, for example, gives meaning to colors such as scarlet, gold, and green, just as the United States gives meaning to the colors of the Nation's flag. Other cultures and groups similarly give meaning to particular colors. Marines should become familiar with the important colors and their meanings within their operational environment. Some examples include gang affiliations; for example, the Bloods and Crips, two well-known gangs in the United States, use red and blue respectively. Motorcycle gang members use colors to show their affiliation with patches sewn to their coats. Colors can also display religious importance and meaning. Blue and white are significant colors in Judaism—blue symbolizes heaven while white symbolizes light and honesty. The colors white, red, green, blue, and black are significant within Islam. Blue is a color of protection and many mosques are beautifully decorated with blue turquoise, blue tile, and blue paint. The primary symbol of the martyr is blood—or the color red. The color white symbolizes purity and martyrdom, while black symbolizes mourning and loss. The importance of the color green is less specific. Supposedly, green was the Prophet Mohammed's favorite color; additionally, a passage from the Quran describes paradise as a place where people "will wear green garments of fine silk."

Atmospherics

Atmospherics is the interpretation of the collective "mood" of an area, both consciously through the five senses and subconsciously through intuition. Atmospherics is how a place looks, sounds, tastes, feels, and smells. Paying attention to changes in a community's atmosphere from the baseline allows Marines to identify, capture, or kill threats before they can attack, or to anticipate an attack and take precautionary measures. In determining the atmospherics of an area, Marines must understand the two aspects of atmospherics:

- Cultural context and baseline.
- What atmospherics communicate.

Marines must first establish a baseline for the area's everyday patterns of life in order to determine anomalies or atmospheric shifts. Marines must understand the cultural context of an area to effectively understand the baseline. Atmospheric characteristics differ from culture to culture, and between areas within the same culture.

Atmospherics can communicate the level of support, trust, and comfort that the local population has for a person, a specific unit, or a patrol. Atmospherics can communicate the collective feeling toward a subject, event, person, or group, such as a general feeling of excitement, fear, trust, or distrust. The collective feeling of security and a threat's presence can be communicated by the atmosphere of the area around a patrol.

How Atmospherics are Measured. Atmospheric indicators come from studying each domain of profiling, and although they are not foolproof, they are fairly reliable. Local inhabitants have their own means of gathering information. As inhabitants' behaviors change, they cause changes that stand out from the anticipated baseline for the area. There are several indicators and cues Marines can observe to ensure accurate interpretations are made. These can include:

- *Kinesic indicators*. A person's or group's posture, look, body language, and gestures communicate people's interest, disinterest, support, apprehension, or fear.

- *Proxemics*. The relative distance people assume compared to other people, places, or objects, to include Marine patrols, communicates their attitude toward what they are observing or are close to. The presence or absence of people—especially women and children—may signal that a threat is in the area, that they have been intimidated, or that they are afraid of or very hostile toward US forces. The way people interact with each other communicates their intentions or emotions toward each other. By identifying friendly, neutral, and hostile interactions, Marines can remain proactive and operate on the left side of the incident timeline.

- *Geographics and iconography*. A change in the population's demeanor, the presence of graffiti, cleanliness, vacant or abandoned homes, flags, night fliers, or other propaganda can also indicate the atmospheric mood of a place and people.

- *Visible signs*. This refers to signs or indicators of support for US forces. One example of this is people giving the "thumbs up" gesture; however, this gesture could mean something completely different in some cultures, so Marines must know how to interpret particular gestures.

- *Avoidance*. Locals giving or withholding information are atmospheric indicators of their degree of trust in US forces, or of fear of reprisals from others.

- *Signaling*. Signals are often given to alert groups or networks to the presence of US forces or host nation forces or police. Signals may be given via cell phone, car horns or other noises, flags, objects, or lights. For example, during Operation Restore Hope in Somalia in 1992-1993, militants at observation posts burned tires to produce black smoke as a signal that coalition forces were arriving.

- *Noise or silence*. Every area has a baseline for noise. An increase in noise or the absence of noise is an atmospheric indicator.

- *Order or chaos*. There is a significant atmospheric difference between people acting orderly and people running around chaotically. This is related to the presence or lack of usual activity in an area, such as attendance at a mosque or shops being open or closed. The degree of order or chaos must be compared against the baseline in order to have the proper context and relevance to provide meaning.

Atmospheric Shifts. An established baseline provides the measure for determining atmospheric shifts. All Marines on patrol must understand the baseline in order to determine atmospheric shifts. Atmospheric shifts are sudden or protracted changes in the collective attitudes, moods, behavior, or normal patterns of life within an environment. Atmospheric shifts indicate the reaction of people in an area to a person or group, object, something done or said, or an event, and can be either positive or negative. A change in the atmosphere can indicate an impending threat or attack, or the presence or absence of a person or group. It is important for Marines conducting patrols in populated areas to note that not every anomaly creates an atmospheric shift, but every atmospheric shift will be created by an anomaly. Following an atmospheric shift, the baseline

must be reassessed. While an anomaly is not a change of the baseline, an atmospheric shift is. Atmospheric shifts also help to assess the effectiveness of the unit's presence and operations (i.e., operation assessment).

Positive Atmospheric Shifts. Positive atmospheric shifts provide clues to a patrol that the population's views of their environment are growing more positive. This positive shift could be caused by several things (or a combination thereof), such as economic growth, job availability, or safety and security. Positive indicators include the following observations:

- People moving into an area which was previously abandoned—people usually move into an area if they feel safe.
- Pedestrians out walking; this signifies a sense of security about their environment and a lack of danger or fear.
- The presence of children (e.g., playing or attending school).
- The increased presence of women or children in public places (i.e., habitual areas), such as markets.
- Increases in proxemic pulls, in which Marines are engaged with general fondness and their presence is regarded as positive.

Negative Atmospheric Shifts. Conversely, negative atmospheric results can include hostile incident indicators that often seem to occur spontaneously. These indicators can alert Marines to imminent danger during a patrol. The most obvious indicators are the sudden absence of normal routines, patterns, and attitudes of the local populace, or the presence of abnormal activity. Some examples of negative atmospherics that could be observed include—

- A noticeable drop in the local population's willingness to talk with or engage patrols indicates a decrease in support, trust, and comfort.
- The collective negative feelings toward a subject, recent event, person, or group, such as protests, riots, or other excitement that displays fear, support, or distrust.
- People running away from or avoiding a patrol, as if to avoid an impending dangerous situation.
- An increased presence of criminals, terrorists, insurgents, or IED attacks.
- Observers on rooftops or in windows who appear to be surveilling the patrol.
- Unusual absence of pedestrian traffic.
- Stores, markets, or street vendors closed when they are usually open.
- The appearance of anti-American graffiti or propaganda in the AO.
- Contracted civilian employees failing to appear for work on US or coalition force bases.
- Families departing the area with large amounts of personal effects.
- Growing proxemic pushes and people avoiding patrols, as if to avoid danger or being observed talking to them.

SPECIFIC THREAT INDICATORS AND OTHER NONVERBAL BEHAVIOR

Marines observe human behavior to identify indicators that cue them to potential threats. Some of these indicators may include those discussed herein.

Smuggling Behavior

When people are concealing something under their clothing that they do not want detected, they may give off some of the following indicators:

- *Patting/touching*. When people are carrying something that they do not want to lose (e.g., a mobile phone, wallet, gun, or bomb), it is common for them to constantly pat and check that part of the body to ensure the item is still with them. Most individuals do this, as they are not used to carrying additional weight. For example, no matter how many times a Marine wears their body armor, even after eight months of wearing it on deployment, they constantly adjust it, since it is not part of their normal attire.

- *Stiff arm*. An individual may display the appearance of having a stiff arm that does not move the way it normally would when walking or standing. This can indicate a concealed weapon.

- *Shortened stride*. Depending on the size and shape of the object being smuggled, one's stride may be shortened to keep the item from shifting or becoming exposed. The additional weight and size of the object may also alter the stride.

- *Adjusting clothing*. A person may pull or otherwise adjust their clothing to keep an object covered, particularly after moving or running. Additionally, the object itself may pull on or displace clothing. As such, a subject may adjust their clothing while trying to return the clothing to its normal position.

- *Blading body*. A subject may "blade" the body to prevent people from focusing on the portion of their body that might expose a bulge or some other indicator of a concealed item.

High Situational Awareness

A person who intends to conduct a violent act may demonstrate a change in their awareness of their surroundings. Some indicators may include:

- *Hyper-observant behavior*. Whenever a person demonstrates high situational awareness, they stand out from the baseline, showing that they are unusually alert and actively looking for threats around them as if they are being watched.

- *Being mission focused*. When a person is focused on their target, they may fail to maintain awareness of their surroundings and show an intense focus on their objective.

- *Trying to act natural*. People exhibiting this behavior look as if they are loitering, appear unfamiliar with the area, walk with no purpose, continually walk back and forth on the same general path, display nervousness or paranoia, and may have communication or technical devices. This behavior is common when individuals are conducting surveillance or countersurveillance of an area.

Mimicry and Mirroring

When the leader of a group assumes certain gestures and positions, subordinates often tend to copy it (i.e., mimicking or mirroring it). This behavior can reveal the "pecking order" of the group. Mimicry also occurs among friends, family members, and lovers. Mimicry may be an instinctual effort to fit in and belong. Mimicry can also refer to mimicking someone's clothing and other adornments, not only their movement or behavior. In addition to being observable behavior, mimicry can be used to build rapport with others.

Illustrators and Emblems

Illustrators are physical gestures and verbal expressions that complement speech, and are used to build understanding or enhance a message. For example, in Arabic culture, a man patting his chest over his heart as he speaks with a Marine patrol leader communicates his respect or gratefulness. Emblems are gestures that replace speech, and can be used when greeting and parting (e.g., waving hello or goodbye), giving direction or controlling movement (e.g., gesturing movements to show a desired action), or showing approval or disapproval (e.g., thumbs up or down). Illustrators and emblems can reduce language barriers, build rapport, or assist communicating through an interpreter, as well as to enhance the quality of communication. Facial expressions also add emphasis to verbal communication.

SUICIDE ATTACK THREATS

A suicide attack is a terrorism technique which requires the initiation of a device that causes the death of the attacker along with the targets that may be killed, injured, damaged, or destroyed. The attacker knows that the attack will fail if they do not kill themselves. Such attacks are commonly executed by detonating explosives either carried on the person (e.g., a suicide vest) or delivered by vehicle, boat, or aircraft. Alternately, suicide attacks may use the vehicle itself to attack and to kill themselves, such as the passenger airplanes that were deliberately flown into the World Trade Center towers in New York City on September 11, 2001. A suicide attacker should be considered similar to a smart or precision-guided weapon system that can identify, select, and engage a target of choice. Suicide tactics are designed to achieve maximum effects at the sacrifice of the individual attacker, whether the purpose is the assassination of a specific individual, the destruction of a high-value target or facility (e.g., police stations, security force bases), or the disruption of events through terror (e.g., political elections). A Marine's ability to identify indicators and employ the "rule of threes" to thwart suicide attacks is critical, when patrolling both in populated areas and within friendly areas. A suicide attack typically begins with surveillance. Marines who observe what they believe is surveillance against them must take active measures to record, report, and continue to observe the environment. To identify indicators of surveillance, Marines may use the acronym "ALERT" (see figure 10-2) to assess an individual who may be a suicide attacker or conducting reconnaissance for a future attack:

- *Alone*. Is the individual alone?
- *Loose*. Is the individual wearing loose or baggy clothing?
- *Excessive*. Does the individual display behaviors of vigilance, trying to blend or appearing to be fidgety?

- _Rigid_. Is the individual displaying a rigid posture (e.g., hands at their sides)?
- _Tightened_. Does the individual have tightened hands? Are they patting their upper body?

Figure 10-2. Principles of Surveillance Detection.
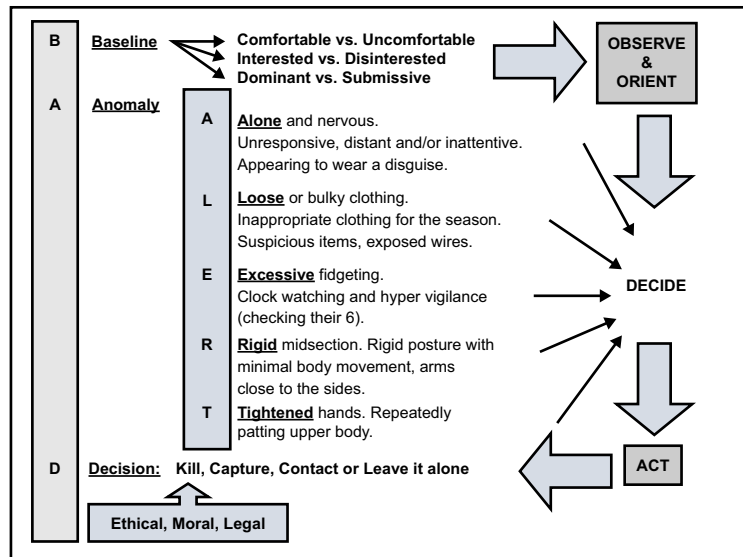
When situations arise where Marines believe they are observing a potential suicide attacker approaching them, they should ask themselves the following basic questions:

- Is the individual deliberately ignoring orders to stop?
- Is the individual attempting to close with friendly forces?
- Is the individual attempting to close with the civilian population?
- Is the individual attempting to bypass security or checkpoints?
- Does the individual appear to be assisted by others?
- Is there surveillance in and around the suspected target area?

Vehicle-borne IED suicide attacks can be employed against patrols from a stationary or moving vehicle. Any situation exhibiting the following general characteristics can indicate potential danger:

- Vehicles approaching a checkpoint, then quickly changing direction and leaving the area.
- Vehicles being seen more than once or twice in the area (watching Marines or acting suspiciously).
- Vehicles slowing down in traffic as a friendly force convoy approaches.
- Vehicles rapidly approaching a friendly convoy.
- Sagging suspension.
- Blocked or blacked-out windows.
- New tires.
- Lone male drivers.
- Pictures of martyrs or graffiti in or on the vehicle.

- Recent paint or alterations to the vehicles.
- Illegally or crudely parked vehicles.
- No license plates, or out-of-area plates.
- Any inconsistencies with the vehicle's design.
- Ignoring any orders to stop, slow, or change lanes.
- Modifications to the interior of the vehicle (e.g., boxes, excess/out of place wires, cylinders, or crates inside).

Basic Risk Reduction Principles

Although units can never be completely secure during military operations, there are basic principles that are designed to reduce the risk of a successful suicide attack. These principles are contained in table 10-1.

Table 10-1. Basic Risk Reduction Principles.

Task	Actions
Create standoff	Create standoff by placing the maximum possible distance and defenses between Marines and potential bombers. Any distance, no matter how small, lessens the effect of an explosive device or other attack.
Reduce target signature	Where possible, avoid presenting a target to a suicide bomber. Maximize force protection and increase dispersion in order to make Marines "hard targets."
Positively identify a suicide bomber	Execute established rules of engagement. Before Marines can open fire, they must have positive identification and distinguish hostile actions or intent. Marines must have an honest and reasonably held belief that they can positively identify a suicide bomber. A potential bomber should be placed in a situation where they are forced to demonstrate their intent.
Preserve the CREW umbrella	Ensure electronic countermeasures coverage is adequately applied to areas of the highest threat.
Intelligence	Intelligence is critical to countering a terrorist attack. The nature of suicide attacks places a high degree of emphasis on gaining and exploiting suicide attack plans and TTP. Immediate dissemination of threat TTP and potential targets is vital to allow Marines to make informed judgments on the use of lethal force.

If a Marine believes a suspect is a suicide bomber and is about to commit an act which is likely to endanger human life, and there is no other way to prevent the danger, then they may use lethal force in accordance with the ROE and procedures for escalation on the force continuum.

Insider Threats

An insider threat is a threat or attack that occurs within secured friendly areas, such as forward operating bases, airfields, and port facilities. Insider threat attacks may be conducted by partnered forces or civilians contracted to work in friendly areas. Attacks can occur at training events, while standing post, on patrol, in meetings, or in other friendly engagements where Marines are perceived to vulnerable. Attacks may also occur when Marines move to positions outside secured areas to meet with partnered forces with the expectation of safety. Insiders must have access to

friendly areas to be able to attack. There are several types of access methods that can be utilized to gain entrance into protected areas and facilities. Some of these include:

- *Co-option*. When an individual is recruited to act for another group to carry out an attack.
- *Infiltration*. When an insurgent joins an allied military or security force through its recruiting process.
- *Impersonation*. This occurs when an insurgent acquires and wears stolen or counterfeit uniforms or creates false identification to impersonate someone with the required degree of access. There is usually an element of co-option involved for them to acquire these items.
- *Personal*. When a person's ideology drives them to feel compelled to change their association and support, or when a certain incident compels them to commit acts of violence or terrorism.

Marines must continually maintain the hunter mindset—always the hunter, never the prey. Whether conducting multinational or bilateral training, foreign humanitarian assistance, other crisis response operations, counterinsurgency, or any other mission, Marines must be prepared to confront any challenge, including insider threats. As they participate in any partnered environment, they need to understand the cultural differences between US and partnered forces. The following terms are used to describe the forces involved and types of attacks that can occur:

- *Green*. Green refers to any partnered military, paramilitary, or legitimate police force.
- *Blue*. Blue refers to US or other coalition or Allied military forces.
- *Green-on-blue*. This describes attacks by partnered foreign military or police personnel on US or coalition forces.
- *Blue-on-blue*. Fratricide—an attack by US or coalition forces on other US or coalition forces.

Triggers for Green-on-Blue Attacks

The opportunity for a green-on-blue attack exists anywhere that partner nation forces have the ability to injure or kill a Marine, whether it is with small arms, explosives, or a weapon of opportunity. Potential causes or triggers for green-on-blue attacks could include the following:

- Interpersonal disputes between Marines and partner force personnel arising from cultural differences, accidental cultural violations, or perceived mistreatment.
- Convoys not allowing traffic to pass.
- Civilian casualties from uncontrolled return fire (provides a perception of not caring).
- The lack of respect toward local citizens by US forces conducting raids and home searches.
- Violations of female privacy during searches.
- An SOP of disarming partner force personnel upon entering a base, giving the perception of a lack of trust.
- Excessive use of checkpoints that severely constricts routine movement.
- Desecrating a religious or sensitive cultural item.
- The killing of civilians by US, coalition, or partnered force personnel.

Insider Attack Case Study: Green-on-Blue Incident

A Marine in a unit training local security forces as part of the international security assistance force's planned withdrawal from Afghanistan in 2014 was involved in an argument with an Afghan civilian. The confrontation resulted in the two yelling at each other and having to be separated by other Marines. The Afghan civilian was acting in the capacity of a personal assistant to the district chief of police, who had arrived less than three weeks earlier. The Afghan civilian arrived separately three days later, and was reportedly preparing to become a member of the Afghan national police force. Reportedly, the argument began after the Marine was repeatedly tormented by the Afghan civilian, who told the Marine several times, "We don't need you here; we don't want you here." Allegedly, the Marine was ordered to apologize and extended his hand to do so. The Afghan civilian wanted nothing to do with the apology. This was toward the end of a quiet deployment in which Marines had not had a firefight in nearly a year. The unit was focused on building trust and relationships with their Afghan counterparts. Both factors affected the security situation, to include discontinuing the policy of posting armed guardian angels near areas of Marine and Afghan interaction. Since this policy was perceived as an offense by Afghan police, Marine officials had resorted to a subtler overwatch. Sometimes, an armed Marine would take an apparent smoke break near a joint meal or meeting to act as a guard without being detected.

At about 2030 hours a few days after the argument, the Marine and others were working out in the forward operating base (FOB) gym on the Afghan district police headquarters compound when an Afghan civilian believed to be 17-18 years old entered the gym. Some called the FOB gym one of the less secure parts of the base. The location of the open-air facility offered only partial visibility to the Marine guard at the FOB's entry point, and Afghans could see the Marines working out. The Afghan civilian, armed with an AK-47 that had been inadvertently left unattended by an Afghan national police officer, shot and killed three Marines. A fourth Marine was injured, but not killed. The Afghan civilian was confronted and disarmed by Afghan police, then captured by a Marine quick reaction force after trying to escape. At the time of his capture, the Afghan civilian admitted to "jihad."

On the day of the attack, there was no guardian angel in the gym. Several Marines were wearing headphones, which, though allowed, resulted in a loss of situational awareness. Only one of the seven Marines inside the facility had a weapon, and he was unable to reach it when the Afghan civilian opened fire. That afternoon, Marine witnesses recalled noticing the Afghan civilian appeared freshly showered and smelling of cologne, an occurrence they called "odd" and "weird."

Many of the triggers listed above can be avoided or mediated through some other means. Perceived disrespect from US personnel is a common theme in green-on-blue attacks. Showing proper consideration and respect for a foreign culture, as well as for the greater impact of their actions on the overall military operation, can prevent many green-on-blue attacks from occurring.

The Marines' level of situational awareness was diminished by the routine and their personal habits and practices, which allowed them to slip into a decreased degree of awareness—a common error while inside a secure area and presumably working with friendly forces. In addition, the Marines compromised a strong guardian angel approach to avoid giving offense to Afghan counterparts.

In examining this incident through the lens of observation and profiling skills, there are several areas where these skills may have had an impact on the event. The initial argument between the Marine and the Afghan civilian and the Afghan civilian's alleged tormenting should have been perceived as non-standard behavior. When the same Afghan civilian appeared in the area freshly showered and smelling of cologne—which the Marines found "odd" and "weird"—there was enough information to stop the Afghan for questioning.

Insider attacks are not always "green-on-blue," but can also be "blue-on-blue" (i.e., fratricide), referring to a US or coalition force member attacking another US or coalition force member or facility. This was witnessed on 5 November 2009, when a US Army officer named Major Nidal Malik Hasan went on a shooting spree at Fort Hood, Texas, killing 13 people and wounding more than 30 others (nearly all of them unarmed US Soldiers). These kinds of incidents can potentially be thwarted by observant personnel.

When partnered forces voice frustration, vocalizations of a potentially threatening nature should be noted. The details of the grievance should also be noted and reported to the chain of command. During operations in Afghanistan, commonly aired grievances registered by Afghan Nation Security Forces were that US Service members used excessive profanity, cursed at them with graphic expletives, and occasionally urinated in open view of the local population. These types of behavior can be exceptionally offensive and counterproductive, depending on the culture. They detract from the mission and do nothing to build trust with the partnered forces or the population. Marines are professionals who act firmly and fairly, regardless of their opinions. Marines must view situations in the proper cultural context and relevance and ensure their decisions are legal, moral, ethical, and congruent with the Marine Corps values of honor, courage, and commitment. Anything less is unacceptable. Quite simply, the goal is stated within the Marines' Hymn, "to keep our honor clean."

THE IMPORTANCE OF ESTABLISHING AND MAINTAINING RAPPORT

Rapport is a familiar, harmonious, sympathetic, reciprocal relationship between people or groups. When patrolling in populated areas, establishing rapport with the population (as well as with any partnered forces) is essential to gaining and fostering trust. In order to build rapport, Marines should understand the components, similarities, behaviors, and techniques for establishing it.

Components of Rapport

It is every Marine's responsibility to engage individuals in a way to be seen as a trusted, helpful presence to the community. Interactions with local citizens or partnered forces are not rank specific. Marines should mentally prepare themselves to interact, remembering that they are ambassadors of the Nation and the Marine Corps, and attempt to build rapport in all available situations. The components of rapport include the following:

- *Positivity*. Positivity generates relaxation in the relationship.
- *Mutual interest*. Being interested in the information provided and conveying the sense of desire to understand their culture will positively affect building rapport.
- *Balance*. This refers to a reciprocal give and take style between individuals.

Universal Similarities

Marines often have trouble identifying what similarities they have with foreign nationals or foreign military members or security personnel. However, there are numerous universal similarities across all cultures that can be the basis for common ground. The acronym, "FORM," which stands for family, occupation, recreation, and military, is a quick way to generate questions when first trying to build rapport with someone from a civil population or partnered security force. Each is described below:

- *Family*. Most individuals have a family—a group of people affiliated by birth, marriage, or cohabitation. Families include both immediate members (i.e., spouse, parents, children, and siblings) and extended family members (e.g., aunts, uncles, grandparents, and cousins). Family could also include tribe and clan affiliations. Marines must be aware of what is culturally appropriate when asking questions about family, as it could be culturally insensitive to discuss certain matters, and taken as an offense.

- *Occupation*. Most people Marines interact with have a job or profession. Marines can easily take an interest in the regular activities people perform for payment. Marines could also find valuable information pertaining to villages, dwellings, or local networks by identifying how local citizens make money.

- *Recreation*. Most cultures have a favorite recreational activity done for enjoyment, amusement, or pleasure. Soccer (called football in most of the world) is one of the most popular sports around the globe. Knowing a little about the biggest soccer teams from England, Spain, or other nations with popular teams could be helpful in establishing rapport.

- *Military service*. When Marines are deployed, it is common for them to meet or train with foreign military personnel. Discussing similarities regarding training, amount of time spent in the military, or other aspects of military service can help build rapport quickly. Although Marines must understand not to discuss current task organization or anything else that would violate operations security, discussing experiences with other militaries can be an easy and enjoyable way to build rapport.

Cultural Considerations.

Culture is the lens through which people view the world—a system of shared beliefs, values, customs, behaviors, and artifacts that the members of society use to cope with their world and with one another. Marines should not make assumptions regarding what a society considers right and wrong, good and bad, or appropriate and inappropriate based on their own culture. Each culture is unique and conditions an individual's range of action and ideas, influencing what is perceived as right and wrong. Marines should attempt to understand cultural differences based upon the cultural context where a person comes from. If a Marine learns to see problems through another person's eyes, they will be able to relate to them more effectively.

Behaviors that Expedite Rapport Building

A Marine's behavior is a significnt aspect in building rapport. By paying attention to the following behaviors, Marines can enhance their ability to increase rapport:

- *Attentive responses*. Attentive responses show someone that the other person is engaged and interested in their questions or statements. These include eye contact, physical proximity, head nods, and "um-hmm" responses.

- *Active listening*. Active listening involves more than just hearing a person; the goal is to express interest in and understand the message being communicated by the speaker. This involves focusing on what the speaker says, suspending judgment, and avoiding other mental activities while the person is speaking. It means not only paying attention to the words, but also observing the speaker's behavior and other nonverbal cues.

- *Giving neutral/non-dominant biometric and kinesic cues*. These include a Marine's relaxed posture, calm tone of voice, type of language, pace of speech, gestures, breathing patterns, or facial expressions (these should also be displayed when working through an interpreter).

- *Determining/establishing similarities*. This means the Marine seeks to discover something in common with the person they are speaking to, identify mutual interests (e.g., hobbies and sports teams), and find other similarities (e.g., hometowns and family history).

- *Courteous behavior*. Showing courtesy and respect for an individual and their culture and using appropriate humor and body language displays a welcoming demeanor.

- *Showing empathy*. This is one person relating to and understanding another's thoughts and emotions. When combined with behavioral matching, it has been shown to contribute to developing empathic reactions. For example, a doctor demonstrating empathy by active listening is considered essential to interactions with patients.

Rapport Skill Sets

The way Marines communicate and interact with a population can enhance or degrade their effects in the environment. Although each culture differs, the following list of skills are a good start in building rapport through verbal and nonverbal communication.

Conversational Language Skills. Using conversation is an excellent way to build initial rapport. Even small conversations can "break the ice" and establish a base of trust. Some of the skills that can be used are:

- Finding initial common ground or interests.
- Showing interest and an appropriate degree of empathy.
- Taking turns speaking.
- Avoiding interrupting the other person's responses.
- Allowing a person adequate time to answer questions.
- Exhibiting appropriate conflict resolution strategies.
- Incorporating mirrored volume, pitch, rate, inflection, rhythm, and enunciation.
- Using appropriate positive silence.
- Paraphrasing or rephrasing what is said for clarity, but avoiding rewording what the person says.
- Using exploring or open-ended questions to gain more information and develop a more in-depth understanding.

Body Language Skills. Body language can carry nonverbal cues that transmit feelings and intentions, even to two people who are not familiar with one another. The following are some basic personal techniques to focus on when using body language:

- Make eye contact, but be aware of its intensity or wearing sunglasses. Eye contact can be perceived as aggression in certain cultures. The appropriate use of facial expressions should be considered.

- Convey positive body language without mirroring the subject.

- Maintain an appropriate distance, and employ a safety stand-off if a threat is perceived.

- Maintain a professional demeanor.

- Convey attentiveness through hand gestures, facial expressions, and active body stance.

- Convey listening by nodding the head, smiling, frowning, hand gestures, and facial expressions. An example of this is the use of the "Sullivan nod," a technique used by restaurant waitstaff in the United States. This technique is simply a small nod of the head up and down while smiling, to show that they are truly interested in what the other person has to say.

Rapport Building Tips

First impressions are extremely important. As stated previously, cultural understanding is important to preparing for the first interaction. When their commander issues talking points to be spread to the population, Marines should ensure they remain professional, positive, on point, and convey the exact message the commander intends. When attempting to build rapport, the following should be considered:

- Marines should present themselves as neutral, respectful, and supportive. By not assuming an overly dominating role, Marines can cause local citizens to feel respect and a desire to demonstrate courteous behavior.

- Be patient and give people time to become familiar with you.

- Marines should begin with neutral, non-threatening questions, and not attempt to get right "to business." By establishing a positive atmosphere focused on personal greetings and mutual interests, it will quickly lead to a constructive first meeting.

- Marines should note any withdrawal or negative responses and actively observe the indigenous person for negative kinesic or biometric cues. It is not always possible to establish a positive first interaction. Cultural bias or other factors could negatively impact the interaction before it begins.

CHAPTER 11.
FIELDCRAFT

IMPORTANCE OF FIELDCRAFT

All Marines should develop their knowledge and skills in fieldcraft, both individually and collectively as a unit. Fieldcraft is more than SOP items and checklists for planning and execution. It is expertise in operating tactically that must be developed and applied, including skills such as individual and unit movement, camouflage, concealment, and tactical cunning.

DAYLIGHT SCOUTING

Daylight provides the greatest advantage to observation. Movement, footprints, and other items critical to scouting are more readily seen during the daylight. This advantage is true for both friendly and threat forces alike. The use of individual and unit movement, camouflage, and optics employment greatly enhances the chance for tactical success and minimizes threats.

Camouflage
Camouflage is the use of concealment and disguise to minimize the possibility of detection or identification by threat forces. The purpose of camouflage is to conceal military objects from enemy observation. Camouflage is also used to conceal an object by making it look like something else. When using camouflage, it should be remembered that objects are identified by their form (i.e., outline), shadow, texture, and color. The principal purpose of camouflage in the field is to prevent direct observation and recognition.

Individual Camouflage. Successful individual camouflage involves the ability to recognize and take advantage of all available forms of natural and artificial concealment (e.g., vegetation, soil, or debris) and knowledge of the proper use of artificial camouflage materials. Marines must recognize the terrain's most prevalent colors and patterns for individual camouflage to be effective. As changes in the environment occur, the appearance of clothing and equipment must change also to blend and not contrast with the terrain (see figure 11-1).

The combat helmet is best camouflaged by breaking up its round shape, smooth surface, and shadow. Helmet covers can be improved by attaching irregularly colored cloth or burlap straps to make it blend with the background. Foliage can be draped to prevent the visor of the helmet from casting a dark shadow across the face. Foliage should not stick up like plumes because head movement will give away the position. In certain units where helmet covers are not worn, mud can be irregularly blotched on the helmet to disguise its form and dull the surface. Spray paint

Figure 11-1. Backgrounds and Contrast.

with comparable colors of the environment can be sprayed using natural foliage as stencils to provide depth. Exposed skin reflects light and attracts the threat's attention. Even very dark skin will shine and reflect light because of perspiration and the skin's natural oil. The "buddy system" is highly recommended when applying camouflage. Standard issue camouflage face paint sticks are two-toned, and should be applied in the following ways:

- Loam and light green for light-skinned Marines in all terrain except snowy regions.
- Sand and light green for dark-skinned Marines.
- Loam and white for Marines in snow-covered terrain.

Shiny facial areas—the forehead, cheekbones, nose, and chin—are covered with a dark color. Shadowy areas—around the eyes, under the nose, and under the chin—are covered with a light color. Exposed skin on the back of the neck and hands is covered with a two-color combination in an irregular pattern or covered with gloves and a neck scarf (see figure 11-2).

Figure 11-2. Camouflage Patterns for Different Foliage.

When standard issue face paint sticks are not available, burnt wood cork or charcoal can be used to tone down exposed areas of the skin. Mud should be used only in an emergency because it changes color as it dries and may peel off, leaving the skin exposed.

Caution
Mud may contain harmful bacteria and cause a health risk. When used, mud should be washed off as soon as possible.

Any equipment that reflects light should be covered with a non-reflective material that aids in concealment, such as black electrical tape or mud. The straight line of the rifle or other infantry weapons may be very conspicuous to an enemy observer. The barrel and hand guard should be wrapped with strips of contrasting colored cloth or tape to break the regular outline. Mud or dirt dulls the reflecting surface of the stock, barrel, and bayonet where the coloring has often been worn. When applying camouflage to weapons, great care must be taken to not impair the functioning of the weapon, including the employment of the aiming sights, reloading, and unloading. If time permits and the tactical situation requires a greater degree of individual camouflage, a ghillie suit may be constructed (refer to MCTP 3-01E, *Sniping*).

Camouflaging a Position. Camouflage can disrupt the outlines and mask the locations of positions such as observation posts and fighting positions. To successfully camouflage a position, the Marine must remember to—

- Camouflage the position as soon as it is occupied.
- Avoid using too much material for camouflage. Even though natural materials are used, using too much may make the object and its shadow stand out from its surroundings and attract the attention of threat observers.
- Inspect completed camouflage work from the direction of the anticipated threat to ensure effectiveness and adequacy. When possible, camouflage should be checked during different lighting conditions during the morning, mid-day, and evening.

Camouflage around a position must be maintained in fresh condition, as wilted and dead foliage can give the position away. If the mission dictates that the position should be occupied for longer periods, wilted foliage should be replaced during periods of reduced visibility.

Cover

Cover is protection from the fire of hostile weapons. Cover can be provided by either natural or man-made features. Natural cover includes features like ditches, ravines, canals, small hills, or large rocks, whereas examples of man-made cover include fighting holes, bunkers, and brick walls. Some features, such as buildings, may provide both cover and concealment, depending on their construction (see figure 11-3).

Figure 11-3. Correct Use of Different Types of Cover.

Concealment

Concealment is protection from observation, or being out of view of a threat. It does not provide protection from fires; however, some features may provide both, such as within urban areas. Like cover, concealment may be provided by either natural or man-made features. Concealment maximizes the use of camouflage and stealth so Marines remain undetected by threats. Whereas a small bush in the shadow of trees or larger bushes makes a well-concealed observation post, lone trees, rocks, fence corners, and outstanding landmarks used as observation posts can be easily identified by the enemy (see figure 11-4).

Figure 11-4. Correct Use of Concealment.

Concealment Principles. Using concealment requires thought, technique, and discipline. The basic concealment principles to be considered when using concealment are:

- Remain motionless while observing. Anything in motion attracts the eye.
- Use all available concealment.
- Observe from the prone position—it offers a low silhouette and makes detection by the threat difficult.
- Do not expose anything that reflects light.
- Blend with the background to avoid contrasting colors and background.
- Remain in the shade because moving shadows attract attention.
- Distort or change objects' regular outlines. Most military objects have distinctive shapes that cast obvious shadows and silhouettes.
- Avoid the skyline. Figures moving on the skyline can be seen from greater distances and are easily identified as human by their movement and outlines.

Concealment Techniques. The basic techniques for concealment are:

- When observing, a Marine looks around an object's side while maintaining the ability to employ their weapon. If the concealment allows the Marine to observe through it, optics should be able to be used as well.
- Looking or firing over an object can silhouette a Marine and make them an easily visible target. If they must fire over the top of concealment or cover, the outline of the head or helmet should be broken or distorted.

- Upon the approach of an aircraft, the Marine takes a prone position, turns face-down, and remains motionless. If an aircraft takes Marines by surprise, they remain in place and do not look upward.
- The Marine covers exposed body parts, such as the face, back of the neck, and hands, with gloves, a scarf, camouflage paint, mud, or other materials to reduce sun reflection.
- Camouflage for equipment to prevent sun reflection can be improvised from old clothing, burlap sacks, or strips of sandbags.
- In snowy terrain, white garments should be worn.
- The helmet cover outline should be lightly distorted.

INDIVIDUAL MOVEMENT

Individual movement and the movement of a patrol is dictated by METT-T considerations. Individual Marines must understand how their movement and responsibilities affect the tactical mission.

Individual Movement Principles

The principles of individual movement are applicable to all situations in which Marines must move to avoid contact or while in contact. The general principles of individual movement include:

- When not in contact, Marines should always assume they are under observation during movement. The focus of movement is stealth in moving from one concealed position to another to avoid observation. When not changing positions, they remain motionless, carefully observing for threats while identifying their next potential location for movement.
- When ready to move to a subsequent concealed position while not in contact, the Marine's head lifts slowly and steadily, without abrupt movements, and searches the subsequent position for threats.
- When contact has been gained, Marines seek covered positions that provide protection from fires. Marines relocate to subsequent positions as rapidly as possible, using speed as an additional measure of security. A Marine springs up, runs with the body bent low in a zig-zag motion, quickly drops to the ground slightly to the right or left of the objective, then rolls or crawls to the desired position while maintaining weapon orientation toward the threat. When moving in contact, Marines should remember the phrase, "I'm up, they see me, and I'm down."

Movement Aids

Aids to movement include—but are not limited to—the following considerations:

- While unit orders and SOPs normally dictate field equipment and loads, Marines should ultimately seek to carry only those necessities required to conduct their mission. Additional weight causes premature fatigue and impedes free movement.
- Marines should make every attempt to avoid disturbing wildlife that could alert the threat to their presence. If animals are alerted, Marines should remain motionless under cover for a few minutes to deter the threat's attention away from the disturbance.

- When possible, Marines should move during natural or man-made noises that divert attention, such as wind, thunder, low-flying aircraft, indirect fire explosions, or bursts of weapons fire.
- Fog, smoke, or even light haze offer concealment for movement; however, the threat may possess thermal imaging devices or NVDs.
- Marines should follow along streams, roads, or large trails, maintaining as far a distance away from them as possible while keeping them in sight. When following ocean, lake, or river shorelines, movement should be kept as close as possible to the tree or dune lines to reduce leaving large trails.
- When Marines move through tall grass or similar growth, they should move when the wind blows, changing direction frequently. A straight route is more easily noticed by the threat.
- Whenever possible, areas of soft ground should be avoided to reduce tracks.
- When crossing a danger area, such as a road or water obstacle, crossing sites should be chosen where the threat's observation is restricted or the feature is very narrow— preferably in an area of shadows at or near a bend. Marines should cross rapidly and as quietly as possible.

Clothing and Equipment

Clothing is essential to protection and camouflage. However, clothing can also limit or even inhibit movement. A few methods to secure clothing include—

- Secure loose clothing (sleeves and trouser legs) using tape, elastic or boot bands to prevent it from snagging on wire obstacles, brambles, and brush.
- The camouflage uniform blouse may be tucked into the trousers to further reduce the potential for snagging.
- Helmet covers should always be worn to muffle unnatural scraping sounds that low branches on the helmet can make.
- Identification tags can be taped together to prevent rattling.
- Gloves and neck scarves can be worn to cover the hands, face, and neck to prevent reflecting light or appearing as white spots in the darkness.
- Rifle slings should be taped to prevent rattling. Any weapons parts that are capable of reflection or glare should be camouflaged.

SCOUTING AND PATROLLING UNDER LIMITED VISIBILITY

During periods of limited visibility, the human eye is less effective in observing and identifying threats. Night vision and thermal imaging devices enhance observation, but have limited capabilities. Chapter 8 contains detailed information on the effects of low light on the eye and considerations for night vision and observation skills.

Aids to Limited-Visibility Scouting and Patrolling

To increase the effectiveness of limited-visibility scouting, consider the following general aids:

- When conducting missions near threat positions, Marines should take advantage of dark (i.e., low lunar illumination), rainy, or windy nights.
- A threatening sneeze can be stifled by pressing a finger upward against the nostrils.
- Males can stifle a threatening cough by pressing slightly on the Adam's apple with the finger.
- When hearing is impaired by blocked or ringing ears, yawning and slightly moving the jaw upwards can reduce it or clear the ears.
- When voice communication is necessary, speak softly rather than whispering since the sound of a whisper travels farther at night.
- Move boldly and rapidly when taking advantage of any noises (e.g., shelling, rustling, wind, or distant firing) to push forward.
- Avoid shell craters and depressions in damp weather conditions if the threat of chemical munitions is present.
- Move the eyes continuously; concentrating too long on one object will strain them.
- Take notice of the threat's use of flares. It is highly unlikely that they will employ flares when they have local patrols out. When flares are not employed, it is likely they have one or more patrols out.
- Upon hearing a flare being fired and before it illuminates, Marines should drop to a prone position as quickly and as silently as possible and remain motionless while it is burning. If in the open or moving when a flare bursts in the air, freeze or drop quickly in the split second after the flare illuminates, while threat observers are temporarily blinded. Marines are an easy target if the flare bursts in the air or on the ground behind them. A flare should never be looked at directly since it will ruin Marines' night vision. If a trip flare is activated, Marines should drop to the ground and crawl away from the illuminated area.
- Within unpopulated areas, all patrols or individuals encountered should be considered hostile. If a threat is encountered, Marines should crouch low, silhouetting the approaching person (or people) against the sky while assessing the situation. At the same time, they should make themselves indistinct targets in case the person (or people) encountered is a threat.

Use of Sounds

At night, sounds become very important. By listening, a Marine may be able to gain information about the threat. Therefore, Marines should stop frequently to listen for long periods in silence to see if anything can be heard—especially when changes in the environment's sound baseline are noted. Some techniques and considerations for listening include:

- Hearing can be enhanced with the mouth open.
- Sounds are transmitted a greater distance in wet weather and at night than in dry weather and during the day.
- The combat helmet can reduce the ability to effectively hear noises. Temporarily removing the helmet may be required to fully hear sounds in the environment and reduce sound distortion.
- Sound travels approximately 370 meters a second. When a flash from a fired weapon is observed, the range to the weapons can be easily estimated by counting the time interval between the flash to the time that the sound is heard. For example, counting to three (i.e., "one

thousand one, one thousand two, one thousand three") indicates that the distance is 1,110 meters. Practicing this method at known ranges can refine this skill, which can be practiced during peacetime training exercises.

Aids to Movement under Limited Visibility

Limited visibility makes movement increasingly more challenging since Marines are not able to fully see threats and the environment. The following aids can assist Marines in moving during limited visibility:

- Marines can move more silently by attempting to pick up their feet straight up and down.
- Marines should move in legs by following terrain features that serve as guides. When no terrain features are available, they should move in straight lines from one defined point to another or maintain direction using a lensatic compass.
- Marines should avoid running except in an emergency.
- Marines should take advantage of sounds that may distract the enemy.
- Marines should fall to the ground silently without making noise.

Walking. When walking during limited visibility, Marines should—

- Avoid tripping or stumbling by lifting the forward foot high to clear any stiff grass, brush, or other obstructions.
- Balance the weight of the body on the rear foot until a secure or stable spot is found.
- Lower the forward foot gently, with the toe first, to explore the ground for objects that might make noise. Fallen trees and branches should be stepped over, not on top of.
- Lower the heel of the forward foot slowly, gradually transferring body weight to it from the rear foot.

Creeping. The low crawl and high crawl are not suitable at night when very near the enemy because they cause easily heard shuffling noises. Creeping on the hands and knees is the recommended method of movement. The hands should feel for twigs, leaves, or other objects that might make noise, and then should clear a spot to place the knee. Keeping the hand at that spot, the knee should be brought forward until it meets the hand. Then the knee should be placed on the ground, and the action should be repeated with the other hand and knee. The rifle should be laid on the ground at the Marine's side and an area cleared for it, and it is lifted and moved forward as the Marine progresses. Movement in this style is slow and tedious since it must be done silently.

Contending with Wire Obstacles. A mission often requires a Marines to pass through and scout behind threat positions. To accomplish this, they must be able to quietly pass through wire obstacles and cross under them. Cutting a gap in a wire obstacle can be a time-consuming task. If possible, a Marine should walk over the low bands of enemy wire and crawl under the high bands. Movement along wire barriers should be avoided, as they are likely to be covered by fires, and fires are generally planned parallel to them to take advantage of canalization and enfilade fire.

To step over low wire at night, a Marine should crouch low to view the strands against the sky. The top strand should be grasped with one hand; with the other hand, the Marine should reach forward and feel for a clear spot for foot placement without stepping on other strands or any object

that might make noise. Then, the Marine should raise their body up, still grasping the top strand of wire. To avoid catching the foot in another strand, they should lift the foot up and over, passing it close to the hand grasping the wire.

If tall wire obstacles (e.g., fences) are encountered at night and wire cutters are not available, the Marine should pass under the wire with their back on the ground, grasping the lowest strands in their hands and holding them clear of the body while they slide underneath them. Marines may assist each other by holding the bottom of the wire up for one another, or an individual Marine may use their rifle to press upward on the wire while moving under the wire on their back.

A Marine cutting wire alone should cut it near a spot where it is fixed to a stake or post (see figure 11-5), then dispose of all but one loose end. The wire should be grasped close to a post and cut between the hand and the post, muffling the sound and keeping the loose wire in the Marine's grasp. When cutting wire in tandem, one Marine firmly holds the wire with the hands positioned close to the cutters in order to muffle the sound and prevent the loose ends from flying back, while the other one cuts the wire (see figure 11-6). In both instances, the loose ends of the wire are bent back to form a passage.

IN CUTTING WIRE ALONE, ONE MARINE GRASPS WIRE CLOSE TO A STAKE AND THE HAND, TO MUFFLE THE SOUND AND RETAINS THE LOOSE WIRE IN THE GRASP OF THE HAND TO PREVENT IT SNAPPING BACK.
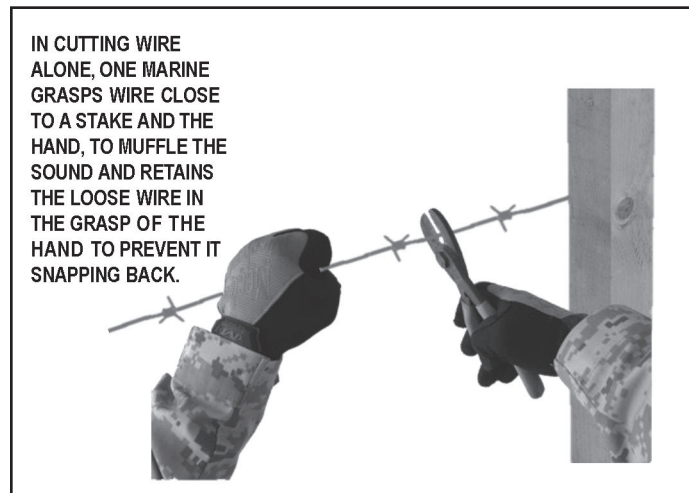
Figure 11-5. Cutting Wire Alone.

A sandbag can be wrapped around the wire cutters and wire to deaden the sound. A complete gap should not be cut in the wire; only the bottom wires should be cut. The top wires should be left intact to lessen the chance of discovery by the enemy.

Plotting Threat Positions and Obstacles under Limited Visibility

Because of their accuracy, speed, and ease of use, global positioning systems or other locational devices are ideal tools for recording the precise locations of threat obstacles and positions. When these devices are not available, locations can be determined using the lensatic compass. Using this method, the scout can guide forces into position, locate the best positions for attack positions and automatic weapons employment, and determine the location of gaps in threat positions.

TWO MARINES CUT WIRE WITH ONE HOLDING THE WIRE FIRMLY IN ORDER TO MUFFLE THE SOUND AND KEEP LOOSE WIRE FROM SNAPPING BACK.
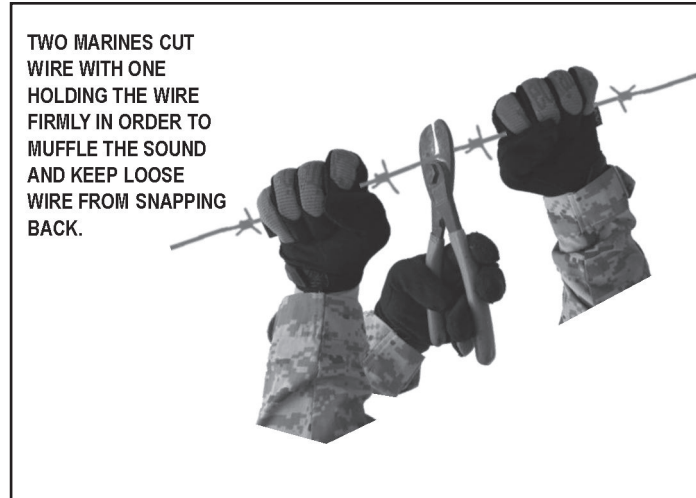
Figure 11-6. Cutting Wire with Another Marine.

Locating Gaps in Threat Wire Obstacles. When searching for gaps in enemy wire, at least two lensatic compasses are needed—one to register the gap in the wire and the other to navigate. When a gap in enemy wire is located, the Marine should lie outside the gap, keeping a distance of ten meters from the wire, and sight the lensatic compass on a prominent point on the skyline in line with the gap. The prominent point in the skyline should appear on the map, if possible (e.g., a hill mass, house, or road junction). If the only prominent point available is not identifiable on a map (e.g., a tree, a destroyed vehicle, or an enemy position), it should be used, and its exact location can be fixed the next day by visually reconnoitering the area from an observation point. When the needle rests, it should be clamped in place by lowering the eyepiece to the closed position. The movable bezel ring is then rotated until the luminous line is directly over the north end of the needle. The azimuth of the gap from the prominent point is now registered. The compass is carried back without further adjustment to record the azimuth, which can later be recorded on a map (see figure 11-7).
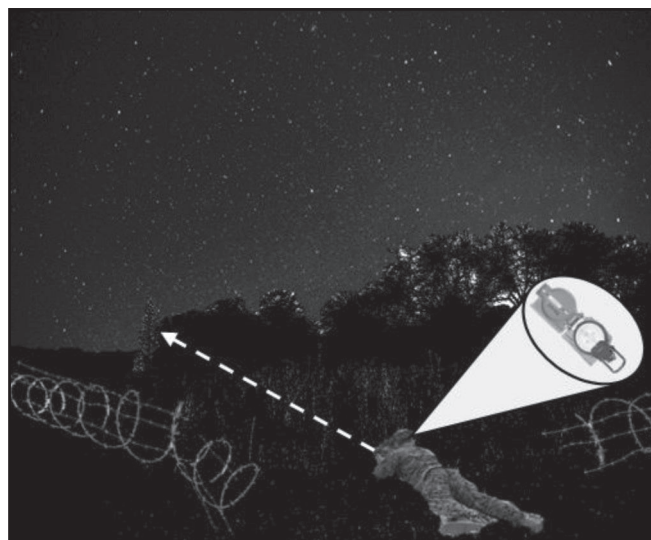
**Figure 11-7. Identifying a Prominent Point at
Night to Locate Gaps in Obstacles.**

Locating Threat Observation Posts. It may be possible to locate threat observation posts at night by their sounds and failure to maintain light discipline. As sounds made by the enemy are heard or the threat position is seen, an azimuth should be shot to it with a compass. When the needle comes to rest, the compass should be clamped by lowering the eyepiece to the closed position. The Marines should take note of the time and nature of each sound, the estimated distance, and which compass was used to fix the location. This data should be plotted on a map, and the information submitted to the unit headquarters. See figure 11-8.
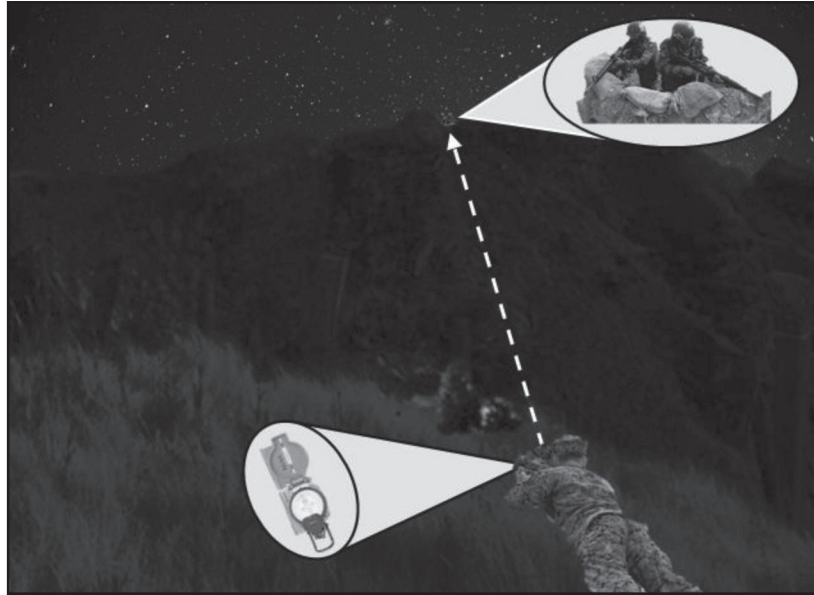
Figure 11-8. Locating a Threat Observation Post.

RANGE ESTIMATION

Range estimation is determining the distance between an observer's location and an object. By accurately estimating range, Marines can accomplish several things, such as correctly adjusting weapons sights and optics and placing effective direct and indirect fires on targets. The degree of accuracy in range estimation is dependent on several factors, such as the methods or tools available, the degree of accuracy required, the relief of terrain, the time available, and the experience of the observer. Although range can best be determined using eye-safe laser range finding devices, these devices may not be readily available. Other methods for estimating range are available on combat vehicles and specialized weapons optics. Also, comparison methods can be used to make determinations based on the known distance or size of other objects.

Mental Estimation
A mental distance estimate is made using a known unit of measure. Distance can be estimated to the nearest 100 meters by determining the number of known units of measure between the observer's position and a target. For example, a 100-yard football field can be used as a known unit of measure for determining the distance between an observer's position and a target. For longer distances, progressive estimation may be necessary. To do this, the observer determines the

number of units of measure to an intermediate point and doubles the value. The observer should consider the effects in table 11-1 in estimating distances.

Table 11-1. Effects in Mental Estimation of Distance.

Objects Appear Nearer	Objects Appear More Distant
In bright light.	In poor light or in fog.
In clear air at high altitude.	Only a small part of the object can be seen.
The background is in contrast with the color of the object.	The background is similar in color to that of the object.
The observer is looking down from a height.	The observer is looking over a depression, most of which is visible.
The observer is looking over a depression, most of which is hidden.	The observer is kneeling or sitting, especially on a hot day, when the ground is moist.
The observer is looking down a straight feature, such as a road.	
The observer is looking over water, snow, or a uniform surface, such as a cultivated field or desert.	

Estimating from a Terrain Study

Estimating range from a map is the most common and readily available method. When a Marine is aware of their current location and is observing an object in a specific direction, distance estimation can be enhanced by studying the terrain and comparing it with the map. To assist them, Marines should give particular emphasis to differences in the color contrast of terrain features along the observer-target line. For example, the distance across successive smaller ridge lines or depressions in the distance may be identifiable by only slight color changes. Different colors of grass may reveal hidden features, such as ravines and streams. Depending on the season of the year and the region, vegetation closer to water features is typically darker and fuller than vegetation away from water sources. Additionally, trees and bushes may grow along these areas, while they do not in other nearby locations. The contrast can help identify these areas.

Estimating in Good Visibility

When visibility is good, distances can be estimated by using the appearance of tree trunks, branches, and foliage (as seen by the naked eye) in comparison with map data. Table 11-2 is a guide for wooded terrain, while table 11-3 is a guide for urban environments.

Table 11-2. Estimating Distance in Wooded Terrain.

Distance (meters)	Tree Description
1,000	Trunk and main branches are visible. Foliage appears in cluster-like shape. Daylight may be seen through the foliage.
2,000	Trunk visible, main branches distinguishable. Foliage appears as a smooth surface. The outline of foliage of separate trees is distinguishable.
3,000	Lower half of trunk visible. Branches blend with foliage. Foliage blends with adjoining trees.
4,000	Trunk and branches blend with foliage and appears as a continuous cluster, smooth in appearance. Movement of foliage due to wind cannot be detected.
5,000 & beyond	Whole area covered by trees and appears smooth and dark.

Table 11-3. Estimating Range in Urban Areas.

Distance (meters)	Object that can be Observed by the Unaided Eye
1,000	Lone tree trunk
1,500	Individuals and large animals, such as cows
3,000	Chimneys on rooftops
4,000	Windows in houses
4,000-5,000	Individual houses in populated area
8,000-9,000	Villages or individual houses
15,000-18,000	Large houses, towers, and steeples

APPENDIX A.
THE PATROL WARNING ORDER

OVERVIEW

After being notified of a pending mission and being furnished with all readily available baseline information, the patrol leader publishes a warning order. The warning order provides initial instructions so a patrol can begin planning and preparation, and is updated as new information becomes known. Publishing a warning order allows preparations to progress while detailed tactical planning continues to develop and refine the patrol order. Additionally, it provides additional time for subordinate element leaders and team members to prepare their Marines based on the information published. A warning order may be a written document, a table, or a combination of both. It can contain as much or as little detail as necessary to properly prepare the patrol the mission (see figure A-1). Unit SOPs typically provide for the type of format used, as well as the degree of content. Although it contains a limited amount of detail, the warning order uses the five-paragraph order format. At a minimum, a warning order may include—

- The mission of the patrol (i.e., mission statement).
- The time and place the patrol order will be issued (in coordinating instructions).
- Who is participating in the operation (in coordinating instructions).
- The tasks (listed by priority) to be completed and who is responsible for them (in coordinating instructions).

ORGANIZATION AND CONTENTS

The organization and general contents of a warning order are listed below.

Situation
The information on the friendly and threat situation necessary for initial preparation.

Orientation. (Displayed on the posted map near the warning order). Outline the patrol's operating area on the map. Display adjacent unit current locations (include their mission) and other friendly forces operating near the patrol's operating area.

- Outline the operating area on the map and display friendly unit locations and boundaries.
- Display the current location of the intended objective.
- Note key terrain, to include easily identifiable natural and man-made features within the operating area.
- Display any key aerial photos that assist in building the patrol's awareness.

Threat Forces. (Who, what, where). Note significant changes in the threat composition, dispositions, locations, and likely courses of action. Any information that was not available at the time the warning order was initially released should be included in subsequent updates.

Friendly Forces. (Higher, adjacent, supporting, and security). Address only friendly forces essential to the patrol, such as adjacent unit patrols, security elements, and supporting units.

- Provide the higher commander's mission and intent.
- Locate friendly locations on the map.

Attachments and Detachments. Provide the initial task organization. Only major unit changes should be addressed.

Mission

The mission statement in the warning order includes who is conducting the patrol, what is to be accomplished, and why the patrol is being conducted. The when, how, and where will be discussed in the patrol order.

Execution

Commander's Intent. If a commander's intent is provided, it should be included.

Concept of Operations. As much information as available should be provided for the concept of operations to frame Marines' understanding. This should briefly describe the vision for employing the patrol elements, covering all major movements and actions in broad terms. The general direction, distance, time of travel, mode of travel, and major tasks to be conducted should be given. Grid coordinates and major terrain features should be used as necessary. All major movements (from the assembly area, to staging areas, link- up positions, pick-up zones, etc.) should be covered. The points where the ground tactical plan starts and stops should be specified, as well as the method of movement (by foot, amphibious assault vehicle, truck, aviation, or other means).

Task Organization. Provide the general organization of the patrol and the assignment of responsibilities, if known; otherwise, include them in in the patrol order.

Task to Subordinates. Focus initially on addressing the non-tactical/administrative instructions for planning and preparing the patrol order. Alert subordinate element leaders to any unique patrol tasks (e.g., stream crossings or rafting operations, helicopter movements, and demolition employment) requiring additional equipment or preparation prior to departure. Provide specified tasks to subordinate elements or units. Tasks assigned to elements (i.e., units, teams, special teams, key individuals, and attachments) should contain information for specific actions, such as water crossings and night operations. Any additional tactical instructions for executing the mission should also be included, depicting the method of movement for each element in the task organization.

Coordinating Instructions. Provide directions for major tasks to be completed (ensure these are reflected in the timeline in the coordinating instructions). Give specific priorities in the order of

completion. These can either be written or posted in a timetable. The following items are typically included within coordinating instructions:

- Timeline. State when, what, where, and who for all specified times (consider following a format that the unit is used to seeing, such as a training schedule). Use reverse planning and ensure the one third/two thirds rule is applied to maximize subordinate preparation time.
- The times and guidance for general preparations (e.g., terrain model construction, rest plan, element leader briefs, equipment issue, and rations and ammunition issue).
- Information and times for specific planning and coordination meetings.
- Uniform and equipment common to all.
- The rehearsal location and specific rehearsals by priority and detail of difficulty.
- The time and locations for additional planning meetings.
- Times and locations of pre-combat checks and pre-combat inspections.
- The time, location, uniform, and equipment for issuing the patrol order.
- The earliest time of movement.
- Tasks for subordinate element leaders to direct and supervise initial preparations, which may include drawing ammunition, rations, and special equipment; conducting immediate action drills or other necessary individual or unit training; meeting and briefing attached personnel; reconnoitering the area for passage of lines; and coordinating with the necessary unit leaders.
- Preliminary guidance to attached personnel regarding their roles and organization within the patrol.

Administration and Logistics

Cover details of any known logistical requirements for the patrol. These may include:

- Individual uniform, equipment, weapons, and prescribed load of rations, water, and ammunition to be carried.
- Crew-served weapons (if required) and guidance regarding spread-loading weapons and ammunition during movement (e.g., extra machine gun ammunition or mortar rounds).
- Special equipment requirements (e.g., cameras, wire cutters, demolitions, radios, flashlights, infrared equipment, mines, or binoculars) and their distribution during movement.
- Procedures for drawing supplies.
- Restricted or prohibited items.
- Details or instructions for type of movement (load plans, serials for trucks, AAVs, aviation, etc.).

Command and Signal

Command. Describe the succession of command within the patrol, if not covered in the unit's SOP. Other items to consider include:

- The location of the unit's command post.
- Designating the assistant patrol leader and their role in preparation.
- Designating the navigators and radio operators (if required).
- Reporting procedures, if not specifically covered in the unit's SOP.

Signal. Describe the use of both visual and electronic signals. Cover communications and cryptographic procedures, including tasks to be completed to prepare the patrol order and prior to executing the mission.

The warning order is typically displayed in a common area that allows all members of the patrol to view it. It will also usually be located next to a sand table or terrain model, once constructed. It may include a map with the tentative area in which the patrol will be operating, as well as other critical items such as unit boundaries. A Marine from the patrol's headquarters element should be designated to notify subordinate element leaders of updates made to the warning order.

BASIC WARNING ORDER	
	LAST UPDATE:
SITUATION	
FRIENDLY	HIGHER: ADJACENT: SUPPORTING: SECURITY:
THREAT	
MISSION	
EXECUTION	
CONCEPT OF OPERATIONS	
TASK ORGANIZATION	ATTACHMENTS: DETACHMENTS:
TASK TO SUBORDINATES	ELEMENT LEADERS: TEAM LEADERS: ATTACHMENTS: SPECIALTY TEAMS:
COORDINATING INSTRUCTIONS	
TIME	EVENT/ACTION

Figure A-1. Warning Order.

APPENDIX B.
THE PATROL ORDER

OVERVIEW

A patrol order is produced to provide details that were not addressed in sufficient detail in the warning order, or that changed since the warning order was published. A patrol order provides greater detail on individual duties, unit tasks, the patrol route, departure and reentry procedures, and information on the threat and friendly units that impacts the patrol's mission.

ORGANIZATION AND CONTENTS

The organization and contents of a patrol order are listed below.

Situation

Enemy Forces
- Composition, disposition, and strength are based on the size, activity, location, unit, time, and equipment (i.e., SALUTE) or size, activity, location, and time (i.e., SALT).
- Capabilities and limitations to defend, reinforce, attack, withdraw, and delay (i.e., DRAW-D).
- The enemy's most probable course of action.
- The enemy's most dangerous course of action.

Friendly Forces
- The higher unit's location, mission, and commander's intent.
- Adjacent unit missions, locations (including relative to the patrol's unit), and commanders' intent).
- Supporting unit missions, locations, and commanders' intent.

Attachments and Detachments
What units are attached or detached and the date and time effective.

Mission
The mission statement is the essential task to be accomplished and its purpose (i.e., who, what, where, when, and why). Mission statements for patrols should specify whether completing the mission or time is the priority.

Execution

Commander's intent. The commander's intent provides the overarching guidance for the patrol. It should include the purpose of conducting the patrol, the method the patrol will use to accomplish its tactical tasks, and the end state that is desired following the mission in relation to the threat's disposition, friendly forces' disposition, and the terrain.

Concept of Operations. The concept of operations tells the where, how, and who, and lays out the patrol leader's general scheme of maneuver and fire support plan. It outlines the following:

- The task organization of the patrol.
- Movement to the objective area, including the navigation method.
- Actions in the objective area.
- The return movement, including the navigation method.
- Use of supporting forces (including illumination, if required).

Subordinate Element Missions. Subordinate element missions (i.e., task and purpose) are assigned to elements, teams, and individuals as required.

Coordinating Instructions. This paragraph contains instructions common to two or more elements, coordinating details, and control measures applicable to the patrol as a whole. At minimum, it includes the following information:

- Time of assembly in the assembly area.
- Time of inspections and rehearsals (if not already conducted).
- Time of departure and estimated time of return.
- Location of departure and reentry of friendly lines and the actions associated with departure and reentry.
- Details on the primary and alternate routes to and from the objective area.
- Details on formations and the order of movement.
- Rally points and actions to be taken there.
- The final preparation position and actions to be taken there.
- The ORP and actions to be taken there.
- Actions to be taken at danger areas.
- Actions to be taken upon enemy contact.
- Details on actions to be taken in the objective area that are not covered elsewhere.
- Estimated time of patrol debriefing upon return.

Administration and Logistics

- Changes/additions to the uniform, equipment, and prescribed loads from what was given in the warning order.
- Instructions for handling wounded personnel and captured or detained personnel.

Command and Signal

Command Relationships. Identify key leaders and the chain of command.

Signal. Include all matters related to communications within the patrol and to HHQ. Include items such as—

- Challenge and password.
- Hand-and-arm signals.
- Special signals (e.g., pyrotechnic signals).
- Radio frequencies.

APPENDIX C.
THE PATROL OVERLAY

OVERVIEW

Regardless of the size of the patrol unit, the unit's COC must always be aware of its location and activity. The creation and submission of a patrol overlay is critical to providing situational awareness to the COC. Patrol overlays can be digital or "hard copy." The hard copy patrol overlay is a transparent or translucent graphical depiction of information about the patrol which is plotted at the same scale of a map, photograph, imagery, or graphic for the unit's headquarters. When the overlay is placed over the map, the details on the overlay appear in their true position with respect to that map. Digital overlays contain the same features, but are prepared using a digital C2 system that can add the overlay as a "layer" on the digital CTP. Materials needed to make a high-quality hard copy patrol overlay include:

- A map, photograph, imagery, or graphic.
- Overlay material (e.g., acetate, clear plastic from rations packaging, or onion skin paper).
- A straight edge.
- Tape.
- Map pens.
- Protractor.
- MIL-STD-2525_, Department of Defense Interface Standard: Joint Military Symbology.

Refer to figure C-1 for an example of a patrol overlay. While a hard copy patrol overlay typically includes all the information listed below on the acetate or other overlay material, when a digital overlay is used, much of this information may be in a separate file or sheet of paper. The information required on or with a patrol overlay includes:

- Register marks (i.e., grid line intersections that indicate where the overlay fits on the map.
- Primary patrol route graphic and information box.
- Alternate patrol route graphic and information box.
- Checkpoints—graphic and information box.
- A target list of pre-planned targets, including their designations, locations, descriptions, and any applicable remarks.
- All tactical control measures.
- Marginal information box, which includes:
  - Patrol identification and name of the patrol leader.
  - Date of the patrol.

◦ The map reference data (i.e., the sheet name, sheet number, series, and scale).

◦ Name of overlay preparer.

◦ The time of departure.

◦ The time of return.

• A legend that defines symbols used in the overlay's graphic.

• A call signs and frequencies.

• A list of brevity codes used and their meanings.

• Classification..
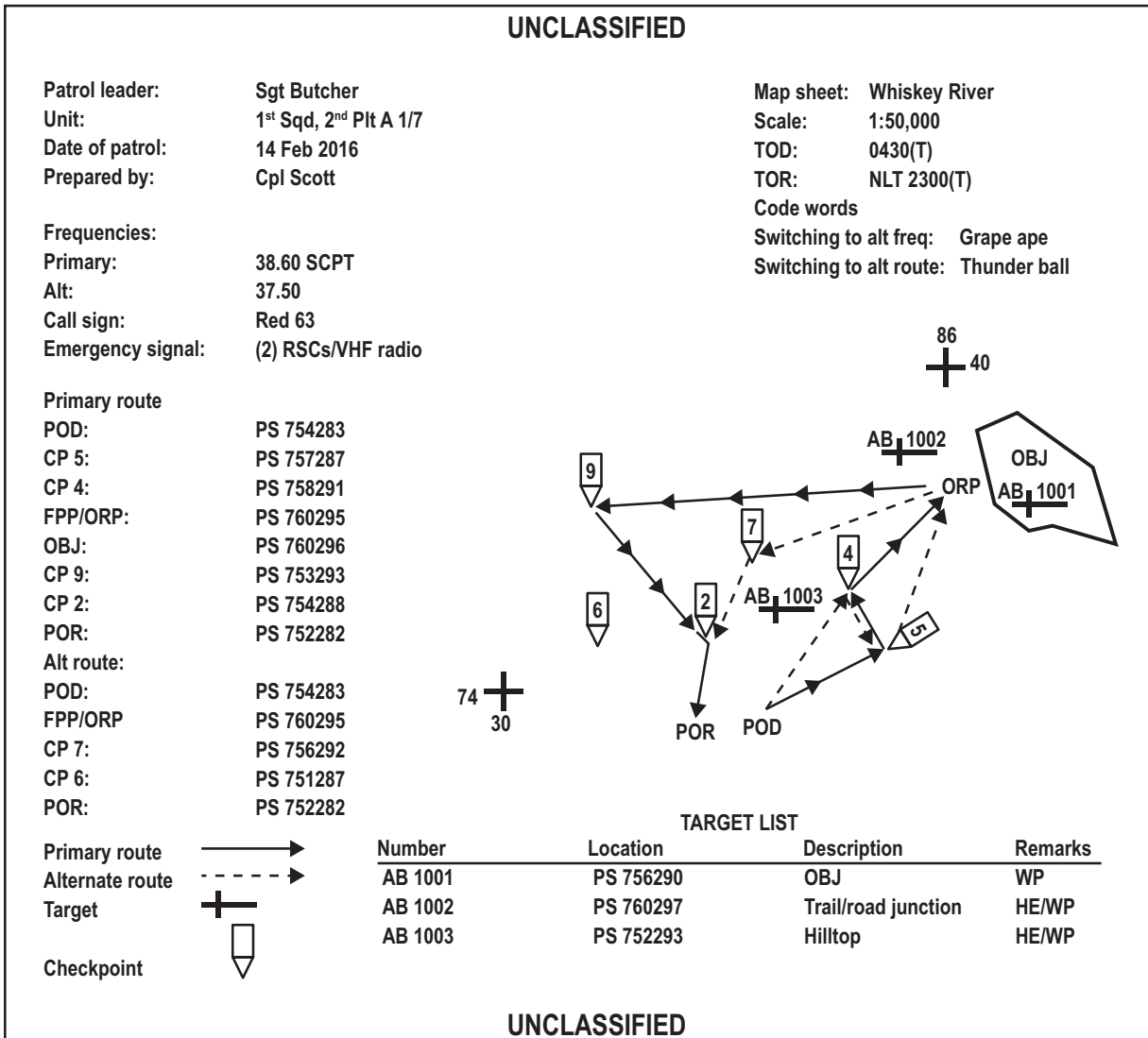
Figure C-1. Patrol Overlay Example.

Preparation

When hard copy overlays are used, the patrol leader creates two patrol overlays on clear plastic. If existing pre-planned targets do not adequately cover the patrol route, the patrol leader should plan/request additional targets. These additional targets must have their target designator left blank until the fire support coordination center approves the target and issues a target number. Targets to be requested are submitted as a list of targets. If the fire support coordination center approves those targets, they are returned as a target list. There are three steps in preparing a map overlay—orienting the overlay, plotting and symbolizing the details, and adding the required marginal information.

Orientation. This step applies to hard copy overlays only, not to digital overlays. The overlay material is placed over the appropriate map area and temporarily affixed to it with tape. Next, the grid line intersections at two opposite corners of the overlay are traced and each are labeled with the proper grid coordinates. These register marks show someone exactly where the overlay fits on the map. Without the register marks, the overlay is difficult to orient.

Plotting Detail. For a hard copy overlay, colored map pens should be used to plot the patrol's intended routes and other information, such as the locations of pre-planned targets and tactical control measures. The digital C2 systems that can produce digital overlays have their own features for adding these details. The Marine preparing the overlay should use standard military operational terms and graphics per MIL-STD-2525_ to ensure the overlay communicates the same thing to anyone viewing it and reduce the chance of misunderstanding. These symbols are normally pre-loaded in digital C2 systems. Any non-standard operational terms and graphics invented by the author must be identified in a legend on the overlay; however, these should be avoided if possible.

Marginal Information. When all required details have been plotted on the overlay, the following information is printed on it:

- Marginal information box, including the information listed above.
- Legend information, clarifying both standard and non-standard symbols used on the overlay.
- The call signs and frequencies to be used, including both primary and alternate for the planned duration of the patrol plus at least one extra day in case of contingencies.
- Brevity codes and their meanings.
- Target list information.
- Remarks information—if there are no special remarks to be made, this box may be omitted.
- The classification of the overlay (per command guidance) should be placed at the center top and bottom of the overlay.

Use of the Patrol Overlay

Higher headquarters retains one copy of the overlay. The overlays are retained to track the patrol's movement, deconflict friendly units, and facilitate indirect fire support.

APPENDIX D.
PRE-COMBAT CHECKS AND INSPECTIONS

PRE-COMBAT CHECKS

Weapons
- Optic mounted correctly and zeroed to weapon or collimated/laser bore sight complete.
- Iron sight zeroed and accessible.
- Combat knife or bayonet.
- Cleaning gear.
- Proper sling (silenced).
- Magazines loaded with correct rounds in accordance with SOP or the patrol order.
- Clean and properly lubricated (test fire/function check).
- Grenades stowed properly.
- Pyrotechnics distributed to designated Marines and stored properly for employment.
- Rockets with applicable optics checked and ready to employ.
- NVDs function checked, mounting harness serviceable/complete, spare batteries, secured, focused, ready to employ.
- Additional optics function checked, batteries, secured, ready to employ.

Body Armor and Helmet
- Ballistic protective plates inserted.
- Collar and groin protector installed.
- First aid kit stored per SOP.
- Ammo pouches.
- Grenade pouches.
- Drop pouch.
- Canteens (i.e., number and filled), canteen cup, canteen pouches.
- Camelbak.
- Utility pouch.
- Name tag.
- Compass pouch.
- All attachments fully threaded, dummy corded, and placed in accordance with usability and SOP.
- Helmet: NVD plate secured and serviceable, chin strap serviceable, helmet cover on, cat eyes, pads securely installed.

Uniform
- In accordance with unit SOP or the patrol order.
- Watch cap.
- Socks.
- Serviceable boots with identification tag placed per unit SOP or the patrol order.
- Identification card in left breast pocket.
- Eye protection (i.e., both day and night).
- Gloves.
- Equipment density list (unit leaders).
- Mapping gear (e.g., protractor, mapping/alcohol pens).
- Note taking gear (e.g., water resistant notebook).
- Communications-electronics operating instructions.

Assault Pack
- Specialized gear.
- Orders with overlays.
- Warming/drying layers as required.
- Socks.
- Hygiene gear.
- Tarp.
- 550 cord.
- Camouflage paint.
- Entrenching tool.
- Ear plugs.
- Flashlight (with lenses and batteries).
- Electrical tape.
- Rations per SOP or the patrol order.

Main Pack (designated Marines)
- Ammunition.
- Rockets.
- Mortars.
- Grenades.
- Rope.
- Breaching equipment.
- Non-lethal equipment or other special equipment.

PRE-COMBAT INSPECTIONS

- Does the Marine understand the threat and the situation?
- Does the Marine know the mission?
- Does the Marine know the commander's intent?
- Does the Marine know the desired end state?
- Does the Marine know their specific tasks?
- Does the Marine know the CASEVAC plan?
- Does the Marine know the SOPs associated with the mission?
- Does the Marine know how to operate their equipment?
- Does the Marine know what unit is adjacent or what patrols are in the area?
- Does the Marine know the ROE and criteria to escalate on the force continuum?
- Does the Marine understand their collateral duties (e.g., combat lifesaver, breaching team member, CBRN monitor/survey team member, litter team member, or overwatch)?
- Does the Marine know the challenge and password?
- Does the Marine understand the sequencing of events within the scheme of maneuver?
- Does the Marine know the brevity codes?
- Does the Marine know the important aspects of the communications and signals plan?
- Does the Marine know the lost Marine plan?
- Does the Marine know the detainee/prisoner plan?
- Is the Marine mentally prepared for the mission (i.e., rest, food, mindset, condition of their feet)?

ADDITIONAL CONSIDERATIONS FOR MOTORIZED OR MOUNTED PATROLS

- Has the vehicle been properly serviced for pre-operations according to the vehicle's technical service manual?
- Is the vehicle fully fueled?
- Are spare fuel cans available?
- Have the gun mounts been serviced?
- Are windows clean and free of visual obstructions?
- Do all vehicles have serviceable fire extinguishers?
- Is a spare tire available and serviceable?
- Do all vehicles have serviceable jacks and basic tool kits?
- Where is the tow bar located?
- What recovery assets are available from the unit and where are they located?
- Where is the maintenance collection point? What are the procedures for vehicle evacuation?
- Are all Marines wearing issued flame-retardant garments and eye protection?

- What is the rate of march?
- What is the catch-up speed?
- What is the plan for an inoperable vehicle, whether due to mechanical reasons or enemy fires?
- Do all Marines understand the appropriate immediate action drills? Have they rehearsed them in sufficient detail?
- Are the appropriate petroleum, oils, and lubricants on hand?

APPENDIX E.
PATROL COORDINATION CHECKLIST

PATROL LEADER

It is critical for the patrol leader to coordinate all aspects of the patrol with the following sections or units.

S-2 Intelligence Section or Company Level Intelligence Cell

- Current enemy situation.
- Terrain and vegetation.
- Weather and light data.
- Previous patrol reports.
- Aerial photographs and imagery.
- Photographs or information on enemy uniforms and weapons.
- PIRs and intelligence requirements (i.e., information to be collected).
- Debrief (i.e., who, where, when).
- Special equipment.
- Sniper attachments.

S-3 Operations Section or Company Headquarters

- Submission and approval of the patrol route overlay.
- Current friendly situation.
- Departure/reentry of friendly lines:
- Time and place (coordinated with the forward unit commander).
- Emergency signals.
- Restrictions (e.g., illumination, smoke, riot control agents, pyrotechnic).
- Required reports and reporting occasions.
- Location and time of rehearsal.
- Location and time to test fire weapons.
- Challenge and password.
- Adjacent patrols (see following).
- Lost Marine plans.

Adjacent Patrols

- Identity of patrol leaders.
- Identity of units.
- Size of patrols.
- Times of departure and return.
- Enemy action.
- Routes (i.e., primary/alternate).
- Mission.
- Frequencies and call signs.
- Challenge and password.

Weapons Platoon Commander or Fire Support Coordinator

- Target allocations and priority of fires.
- Fire support assets available.
- Location of fire support units.
- Ammunition types and fuzes available.
- Priority targets.
- Active FSCMs.
- Fire support frequencies and call signs.
- Submission of fire support overlay.
- Availability of forward observers.
- Attachments.
- Debrief.

Air Officer, Forward Air Controller, or Joint Terminal Attack Controller

- Aircraft availability.
- Frequencies and call signs.
- Attachments such as forward air controllers, JTACs, and JFOs.

S-4 or Company Gunnery Sergeant

- Ammunition and pyrotechnic requests.
- Rations.
- Special or additional equipment requests.
- Time and location to draw supplies.
- Transportation.

S-6 Communications Section or Company Radio Operator

- Cryptographic procedures.
- Frequencies and call signs.

COORDINATION WITH FORWARD UNIT COMMANDER

At a minimum, the patrol leader ensures that the following items are coordinated with the forward unit commanders where the patrol will depart or enter the lines.

Information Provided
- Identity of the unit.
- Identity of the patrol leader.
- Patrol frequencies and call signs.
- Size of the patrol.
- Mission of the patrol.
- Time of departure and return.
- Patrol route.

Information Collected
- Terrain and vegetation.
- Enemy situation.
- Friendly positions.
- Barrier plan.
- Fire support plan.
- Units' frequencies and call signs.
- Challenge and password.

Information Coordinated
- Location of initial rally point and return rally point.
- Location of the point of departure and point of return through friendly lines.
- Departure/reentry procedures.
- Frequencies and call signs.
- Emergency signals/plans.

Support Requested
- Guide through lines.
- Fire support.
- Reaction force.
- Litter team.
- Navigational aids.

APPENDIX F.
PATROL REPORT

PURPOSE OF REPORTS

Prior to a patrol, the unit commander designates information and intelligence requirements to be collected on. Answers to these requirements may or may not be observed during the patrol, or the patrol may uncover items of new interest that the commander may desire to pursue. This is why it is important that all Marines understand that every Marine is a collector, and every Marine is an observer—no matter their rank, tactical task, or position within a patrol. A patrol report is submitted once the patrol leader has done a full debrief of the patrol members and critique of their actions upon returning to friendly lines or areas to ensure everything that was noted about the operational environment is included. An accurate and complete report is vital in assisting the unit commander in understanding the operational environment. Items that may seem insignificant should be reported; they may have value at higher echelons of command.

Information is quickly shared (preferably in person) with the unit's company level intelligence cell or intelligence section during their patrol debrief. Written reports, sketches, photos, or relevant information are submitted to add depth and meaning to the receiving headquarters. The patrol report should be a complete account of everything observed or encountered by the patrol while on the assigned mission. Each unit should have their own list of requirements for a patrol report. At a minimum, a patrol report should include the following information:

- Time of departure/return.
- Size and composition of the patrol.
- Routes used (show by checkpoints, sketches, azimuth, and trace on map).
- Mission (tasks and purpose).
- Intelligence requirements to be collected.
- Narrative describing:
    - Friendly unit coordination problems not planned for.
    - Terrain (general description, including man-made or natural obstacles and critical terrain features that would allow friendly or threat forces to control the surrounding area, if occupied).
    - Any encounters with civilians and their general disposition toward Marines.
    - Observed threats (i.e., SALUTE).
    - Intelligence requirements collected or not collected on.
    - Any map corrections (show on map).
    - Miscellaneous information of possible value not covered elsewhere in the report.
    - Condition of the patrol, including the disposition of any killed or wounded.
    - Conclusions and recommendations.

APPENDIX G.
TRAINING

OVERVIEW

Frequent and continual training is the most essential element to building effective scouting and patrolling skills. Training should focus on individual skills, building effective small unit leaders, and collective unit training. The establishment and incorporation of SOPs is central to a solid foundation for training. Well-established and enforced SOPs prevent premature and unordered actions by members of a patrol, which can degrade or even destroy its capabilities and tactical success. Standard operating procedures also reduce confusion, save time, and increase efficiency and effectiveness. For more detailed information on training, refer to MCTP 8-10A, *Unit Training Management Guide* and MCTP 8-10B, *How to Conduct Training.*

Attention, thought, and scrutiny in training should be initially focused toward developing leaders, especially their decision making and tactical skills. Realistic training environments should be created to replicate stress and other factors to simulate the operational environment, enabling Marines to train to function with chaos and limited information. Decision making and leadership development does not always have to be conducted in a field environment, and may be conducted at any time. They may also be developed through—

- Sand table exercises.
- Tactical decision games.
- Scenario-based guided discussions.
- Terrain walks.
- Vignettes to reinforce cultural aspects of certain operational environments.

The goal of training is to develop well-trained, tactically proficient units and leaders who can issue well thought plans, as well as an ability to execute and adapt under stressful conditions. All patrol members must work together and operate as a team. Effectively trained leaders inspire confidence and discipline in subordinates to complete their assigned tactical tasks.

SPECIFIC SCOUTING AND PATROLLING SKILLS

Although it is not an all-inclusive list, Marines should be trained in the following scouting and patrolling skills under both high and low visibility conditions:

- Formal training in combat hunter skill sets to—
    - Increase each Marine's observation skills to be able to proactively identify threats.
    - Be prepared to employ tracking methods and techniques to follow a threat and determine their capabilities and intentions.
    - Employ human profiling to establish baselines and assessments of behavior when conducting patrols in populated areas.
- Cultural training to develop understanding of the sociocultural aspects of the operational environment.
- Executing battle drills and immediate actions, such as:
    - React to contact (to include IEDs).
    - Break contact.
    - React to ambush (near and far).
    - React to indirect fire.
    - Others may include weapons employment, evasion techniques, and breaching wire obstacles.
- Expertise in handling individual and special weapons, and familiarity with threat weapons that may be captured.
- Recognizing camouflaged personnel, equipment, and defensive positions, and the ability to identify targets.
- Weapons employment from any firing position.
- Understanding fire discipline.
- Quick and accurate observation skills, and the ability to recall and transmit clearly and briefly, both orally and in writing.
- Recognizing and quickly responding to improvised signals, visually or by sound.
- Swimming with weapons and equipment and constructing improvised rafts.
- Using issued or improvised camouflage.
- Techniques for silencing self, equipment, and weapons.
- Use of water purification equipment or tablets.
- Acclimatization concerns and methods for operating in temperature or altitude extremes.
- Developing a sense of direction and the ability to navigate by compass, stars, sun, the flow of streams, prominent terrain features, and by observing other natural phenomenon.
- Determining distances traveled from a known point and keeping records of the distance traveled on each azimuth (i.e., dead reckoning).
- Receiving, developing, and issuing patrol orders.
- Developing and issuing warning orders.

- Creating sand tables.
- Tactical formations and movement techniques.
- Departing and reentering friendly lines.
- Moving across and through danger areas (linear and open areas, including water features).
- Bypassing, moving through, or covertly breaching non-explosive obstacles (natural and man-made).
- Establishing ORPs.
- Developing and issuing FRAGOs.
- Calling for and adjusting indirect fires.
- Familiarization with all communications equipment, basic troubleshooting, and waterproofing, and constructing, using, and adjusting field expedient antennae.
- First aid and combat lifesaver skills.
- Casualty reporting, care, evacuation planning, and execution procedures (i.e., 9-line CASEVAC report).
- Lost or missing Marine procedures.

PATROL CRITIQUE

A patrol critique is an evaluation tool with a comprehensive checklist of critical patrolling steps, techniques, and procedures for training Marines. Unit leaders may use the list as they observe the performance of a patrol to provide the patrol leader with a detailed analysis of their performance. Marines being evaluated should understand that a critique is not intended as criticism. The patrol critique is a tool to assist them in becoming more effective in planning and executing patrols through detailed evaluation.

Warning Order	Yes	No
Did the patrol leader ensure all patrol members were present before issuing the warning order?		
Did the patrol leader issue a brief statement on the threat situation?		
Did the patrol leader issue a brief statement on the friendly situation?		
Did the patrol leader state the mission in a clear, positive manner?		
Did the patrol leader list all members of the patrol, including attachments?		
Was the chain of command for the patrol covered fully?		
Were all members of the patrol assigned positions and duties in particular squads and teams?		
Were all the necessary individual duties assigned?		
Did the patrol leader follow established principles in organizing the patrol into squads and teams?		
Was each patrol member assigned a particular weapon to carry on patrol?		
Did the patrol leader list all special equipment needed to accomplish the mission?		
Was the required special equipment assigned to the proper element to carry?		
Did the patrol leader select uniform and equipment common to all based on METT-T?		
Coordination with Adjacent Units	**Yes**	**No**
Did the patrol leader coordinate with other patrols operating to the right and left?		
Were the routes out and back coordinated?		
Were the times of departure and return coordinated?		
Were call signs and frequencies coordinated?		
Was a signal for the FPF coordinated?		
Coordination with Friendly Units to Pass	**Yes**	**No**
Did the coordinator pass the size of the patrol?		
Were the times of departure and return coordinated?		
Did the coordinator give a general operating area for the patrol?		
Did the coordinator ask for information on known or suspected threat positions or obstacles?		
Did the coordinator ask about information on the latest threat activity and locations?		
Did the coordinator ask for detailed information on fire support available and the unit's barrier plan?		

	Yes	No
Was the location of the initial rally point established and coordinated?		
Did the coordinator ask the forward unit to monitor their patrol frequency?		
Was the current challenge and password confirmed?		
Did the coordinator request that all information coordinated be passed on to any relieving unit?		
Patrol Order	**Yes**	**No**
General		
Did the patrol leader check to ensure all patrol members were present before issuing the patrol order?		
Did the patrol leader issue the patrol order in a forceful, confident manner?		
Did the patrol leader make maximum use of available visual aids in issuing the patrol order (e.g., terrain model, sand table, map board, wet board)?		
Did the patrol leader issue the patrol order in correct sequence?		
Did the patrol leader issue the entire patrol order without allowing interruptions by patrol members?		
Did the patrol leader adequately answer all questions asked by patrol members?		
Did paragraph 1a (Enemy Situation) include—		
A weather forecast for the period of operation?		
A description of the terrain over which the patrol was to operate?		
The identification or description of enemy units known to be in the area of operations?		
The known locations of enemy units?		
The recent activity of enemy units?		
The strength of enemy units in the area of operations?		
Did paragraph 1b (Friendly Situation) include—		
The mission of the next higher unit?		
The locations, missions, and planned actions of units on the right and left?		
The fire support available to support the patrol (as per the coordination)?		
The missions and routes of other patrols operating in the immediate area?		
Did paragraph 1c (Commander's Intent) include—		
The concept of what the commander wants to be accomplished?		
The purpose, method, and end state desired by the commander?		
Did paragraph 1c (Attachment and Detachments) include—		
All attachments to the patrol and the effective time of attachment?		
All detachments from the patrol and the effective time of detachment?		
Did paragraph 2 (Mission) include at a minimum—		
Who was to conduct the patrol?		
What the patrol was tasked to do (e.g., conduct a point recon patrol)?		
Where the action was to take place?		
Why the action was to take place (i.e., the purpose)?		
Whether time or mission has the priority?		
Did paragraph 3 (Execution) include—		
A complete concept of operations?		
A ddtailed description of the missions of the patrol's elements?		

A detailed description of the missions of specific teams?		
A detailed description of the duties of specific individuals (e.g., navigator, pacer, corpsman, assistant patrol leader)?		
The time of departure and time of return?		
The types of formations and order of movement to be used?		
Descriptions of the route and alternate routes, including at minimum azimuths and distances between checkpoints?		
Techniques to be used for the departure from friendly areas?		
Techniques to be used for the reentry into friendly areas?		
The location of the initial rally point and a tentative ORP, to include grip coordinates and recognizable terrain features?		
The method for designating and passing rally points?		
The actions to be taken at rally points if their use became necessary?		
The actions to be taken in the event of enemy contact?		
The actions to be taken at danger areas?		
A complete, detailed description of actions to be taken at the objective?		
Times and locations for inspections and the methods of conduct (to include uniform and equipment to be worn and/or carried)?		
Where, when, and by whom the debriefing is to be conducted?		
Did paragraph 4 (Administration and Logistics) include—		
Rations to be carried, or a reference to the warning order if there was no change?		
The arms and ammunition to be carried, or a reference to the warning order if there was no change?		
The uniform and equipment to be worn and carried, or a reference to the warning order if there was no change?		
The method for handling wounded or dead?		
The method for handling and transporting detainees or prisoners?		
Did paragraph 5a (Command) include—		
The chain of command, or a reference to the warning order if there was no change?		
The location of the patrol leader during all stages of the operation?		
The location of the assistant patrol leader during all stages of the operation?		
Did paragraph 5b (Signal) include—		
A complete description of all signals, code words, primary and alternate frequencies, and call signs to be used within the patrol?		
Were signals adequate?		
Radio call signs to be used?		
Call signs and frequencies to be used with other units in the area of operations (if applicable)?		
Required reports to be transmitted to HHQ, along with the occasions for reporting?		
Code words and brevity codes to be used between the patrol and HHQ?		
The current challenge and password to be used in friendly areas?		
The current challenge and password to be used forward of friendly areas?		

Inspection Rehearsal	Yes	No
General		
Did the patrol leader adequately use the allotted inspection time?		
Was the inspection conducted in an orderly manner?		
During the inspection, did the patrol leader check the following:		
• Completeness and correctness of uniform?		
• Completeness of all equipment necessary to accomplish the mission?		
• Operational condition of the equipment?		
Did the patrol leader question members to ensure they knew—		
• The mission of the patrol?		
• The concept of operations?		
• Their individual duties and responsibilities?		
• The chain of command and succession?		
• The duties and responsibilities of key personnel?		
Did the patrol leader utilize the rehearsal area to conform as much as possible to the area of operations?		
Were the following major actions rehearsed:		
• Actions at the objective?		
• Actions at danger areas?		
• Actions on enemy contact?		
• Departure and reentry of friendly lines?		
• Did the patrol leader critique each action after it was rehearsed?		
• Were intra-patrol communications and control measures checked at rehearsal?		
• Did the patrol leader maintain control of the patrol during the rehearsal?		
Movementl	**Yes**	**No**
Did the patrol leader use the proper formations for movement?		
Did the patrol leader adequately control the point team?		
Did the patrol leader check the navigator?		
Was the patrol leader aware of the patrol's position at all times?		
Were light and noise discipline effectively enforced?		
Was the rate of movement appropriate for the mission?		
Did the patrol leader make full use of the pacer?		
Was proper security maintained during movement?		
Did the patrol leader select and pass proper rally points?		
Did the patrol leader ensure that all members knew the locations of rally points?		
Did the patrol leader properly use hand-and-arm signals?		
Did the patrol leader recognize danger areas and halt the patrol a safe distance from them?		
If the patrol leader conducted a map check, was it conducted properly (light discipline, security, etc.)?		
Did designated Marines reconnoiter the far side of danger areas properly?		
Were support teams emplaced properly?		
Did the patrol leader use a proper formation in crossing the danger area?		

	Yes	No
Were reports made on threat contact and at checkpoints?		
Actions on Contact	**Yes**	**No**
Did the patrol leader halt the patrol a safe distance from a tentative ORP?		
Did the patrol leader issue an adequate FRAGO before departing to look for a tentative ORP?		
Did the patrol leader take appropriate personnel to look for the ORP?		
Did the patrol leader select a suitable ORP?		
Did the patrol leader secure the site adequately?		
Did the patrol occupy the ORP as stated in the patrol order or subsequent FRAGO?		
Did the patrol occupy the ORP in an orderly manner?		
Did the patrol leader maintain control of the patrol during occupation of the ORP?		
Did the patrol leader issue a satisfactory contingency plan to the assistant patrol leader before departing on a leader's recon?		
Did the patrol leader take appropriate personnel on a leader's recon?		
Did the patrol leader maintain or ensure that the patrol leader had communications with the patrol?		
Did the patrol avoid being detected by the enemy during the leader's recon?		
If contact was made, did the patrol leader take appropriate action?		
Was security maintained during the leader's recon?		
Did the patrol leader ensure the objective was kept under surveillance?		
Were appropriate orders given to surveillance teams?		
If a leader's recon proved a tentative ORP unsuitable, did the patrol leader move the ORP?		
Was a satisfactory leader's recon conducted?		
Was the ORP move conducted in a satisfactory and orderly manner?		
On return to the ORP, did the patrol leader issue an appropriate FRAGO and allow enough time for dissemination?		
Actions at the Objective	**Yes**	**No**
Did the patrol leader issue a FRAGO for actions at the objective?		
Was security emplaced prior to the teams departing from the ORP?		
Did the patrol leader employ the terrain at the objective to the best advantage?		
Was stealth maintained while moving into the objective?		
Did the patrol leader exercise positive control of squads, teams, and individuals at the objective?		
Were actions at the objective in accordance with the details outlined in the patrol order?		
Did the patrol leader make use of supporting arms at the objective?		
Was the action at the objective successful?		
Was withdrawal from the objective accomplished quickly and orderly?		
Did units withdraw according to the details reflected in the patrol order?		
Was reorganization at the ORP completed in an expeditious and orderly manner?		
Did the patrol withdraw from the ORP quickly and quietly?		

Returning to Friendly Lines	Yes	No
Did the patrol leader continue use proper formations for movement?		
Did the patrol leader continue to adequately control the point team?		
Did the patrol leader continue to check the navigator?		
Was the patrol leader maintaining awareness of the patrol's position at all times?		
Were light and noise discipline still being effectively enforced?		
Was the rate of movement appropriate for the return from the mission?		
Did the patrol leader make full use of the pacer?		
Was proper security maintained during movement?		
Did the patrol leader use an alternate route and was it passed to HHQ?		
Did the patrol leader select and pass proper rally points?		
Did the patrol leader ensure that all members knew the locations of rally points?		
Did the patrol leader maintain proper use of hand-and-arm signals?		
Did the patrol leader recognize and halt the patrol a safe distance from a danger area?		
If the patrol leader conducted a map check, was it conducted properly (light discipline, security, etc.)?		
Did designated Marines reconnoiter the far side of anger areas properly?		
Were support teams emplaced properly?		
Did the patrol leader use a proper formation in crossing danger areas?		
Were reports made on threat contact and at checkpoints?		
Did the patrol leader recon a position to halt the patrol outside friendly lines?		
Did the patrol leader halt the patrol outside friendly lines?		
Did the patrol leader make contact with the friendly unit to reenter friendly lines?		
Did the patrol leader move elements into friendly lines while accounting for each patrol member?		
Did the patrol leader meet the time of return? If not, was the receiving friendly unit notified?		
Evaluator's Notes		

APPENDIX H.
DECISION MAKING

UNDERSTANDING THE DECISION-MAKING PROCESS

All members of a patrol must be able to accurately observe, assess, and quickly analyze unfolding events in their environment. These skills are critical in allowing Marines to anticipate, respond, and make rapid tactical decisions based on their experience and interpretations of what they observe about their environment. An understanding of Boyd's patterns of conflict theory is central to comprehending decision making.

Boyd's Patterns of Conflict

In the late 1970s, a retired US Air Force pilot named Colonel John Boyd gave a fourteen-hour briefing entitled "Patterns of Conflict," in which he presented a concept that has affected the Marine Corps tremendously. In his brief, Boyd applied concepts to maneuver warfare that he had learned as a fighter pilot. During his study of both air-to-air combat and ground combat, he observed that "the ability to transition quickly from one maneuver to another was a crucial factor in the victory." He commented that it is the ability to operate at a higher tempo—not just speed—than the enemy, as well as the ability to disorient the enemy, that gives an opponent a marked advantage. He concluded that "whoever can handle the quickest rate of change is the one who survives." He referred to the decision-making process in his brief as the observe, orient, decide, act (OODA) loop (see figure H-1). The goal, then, is to get inside of the adversary's OODA loop.

The operational environments Marine forces operate in are constantly changing and increasingly more complex than they were in earlier conflicts. This requires Marines to be able to deal with a civilian populace, operate in dispersed areas with decentralized command and control, and understand the consequences of individual actions, all while fighting an adaptive enemy. Being able to move quickly through the decision-making process increases the tempo of operations, allowing Marines to operate at a faster tempo than the threat.

Factors in the Decision-Making Process

The decision-making process is the constant revolving cycle that the mind goes through every second of every day in dealing with all tasks, from the mundane to the most complicated. This process follows a looping pattern of observing, orienting to what is observed, deciding what to do, and acting on the decision. This process applies to friendly forces, threat forces or networks, and noncombatants alike. It is how the mind deals with the external environment and translates it into action. The decision-making process is not a step-by-step process, but is continual, fluid, and constantly occurring. As new stimuli or changes are introduced into the situation, people make new observations, which lead to reorientation. A decision is made based upon the new assessment of the situation, and an action is taken. The OODA loop applies to both individuals and HHQ units. In fact, the HHQ is dependent upon the abilities of individual Marines to observe the
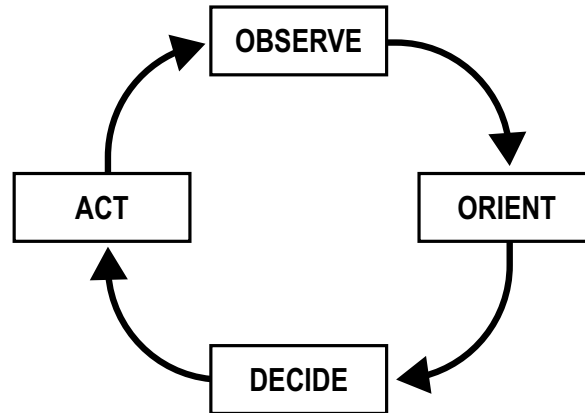
Figure H-1. The Decision-Making Process (OODA Loop).

environment and collect information to help it orient on the most important things. By understanding its four elements, Marines can improve their abilities to make decisions and act on them, improving their ability to get inside the threat's OODA loop (see figure H-2).

Steps in the Decision-Making Process

The OODA loop consists of four steps—observe, orient, decide, and act. The following paragraphs describe each step of this process.

Observe. Observation, the first step in the OODA loop, is a search for information relative to the tactical situation. It must be emphasized that this is not a passive step, and requires an active effort to seek out all the available information by whatever means possible. Marines and small units use enhanced observation techniques, tracking, and profiling to observe the operational environment more efficiently and effectively, collecting relevant information. Enhanced observation techniques increase a Marine's situational awareness and allow information on individuals and events to be collected rapidly. Rapid, methodical, and systematic observations allow Marines and units to orient more effectively. Similarly, HHQ units employ intelligence, surveillance, and reconnaissance capabilities to "observe" and collect relevant information on the operational environment. They use the intelligence that this generates, along with the combat information reported by subordinate units from the observations of individual Marines, to orient to the situation.

Orient. Orientation involves processing, analyzing, synthesizing, and evaluating what Marines have observed. It involves making certain estimates, assumptions, and judgments about the situation to create a cohesive mental image. Marines can make on-the-fly assessments and assumptions based on previous experience and knowledge (i.e., heuristics), or can more deliberately evaluate the information. Orientation emphasizes the context in which an event occurs to better align options, decisions, and actions. Orientation helps to turn information into understanding, which leads to making good decisions.
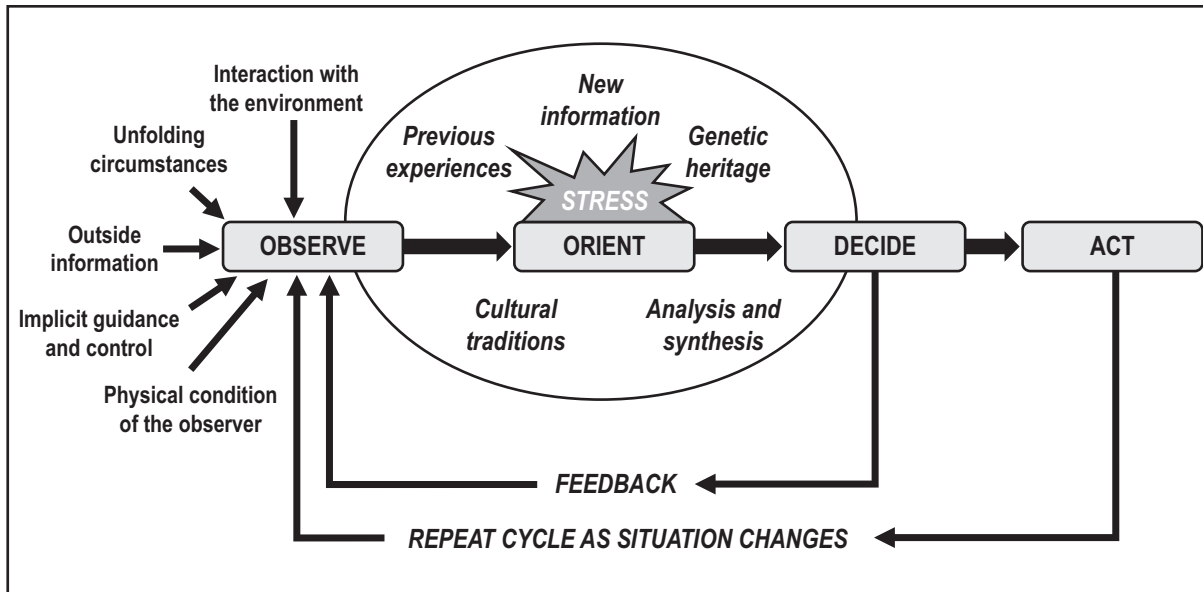
Figure H-2. Factors Involved in the Decision-Making Process.

Individuals and Small Unit Leaders. Individual Marines and small unit leaders analyze a situation utilizing METT-T. To orient on the threat, Marines assess in detail the threat's size, activity, location, unit, time, and equipment (i.e., SALUTE), and attempt to estimate their most probable course of action and most dangerous course of action. Marines should strive to understand the factors the threat uses to make decisions and to predict their actions, such as:

• What will the threat or enemy decide to do?

• When and where will they likely try to accomplish their tasks?

• What TTP have they used in the past that have been successful?

• Will they do it again?

• What cues and indicators are present that tell otherwise?

Higher Echelon Units. Company-level and higher commands conduct a deliberate analysis of the situation through IPB. In this case, intelligence assets and the intelligence cycle aid in creating an image of the battlespace and conducting predictive analysis. Furthermore, intelligence supports the OODA loop by comparing the current situation to the desired end state, and by identifying courses of action to achieve that end state. The commander must look at what options are left for the threat—will they fight or flee? What is the threat trying to accomplish, and what have they done in the past? Ultimately, assessing the situation leads to making a decision. It is critical that Marines orient on the correct elements of a situation and avoid being distracted by things that are either unimportant or false.

Decide. A conscious decision of how to respond to the situation follows orientation. The decision is based on a Marine's perceived observations, training, experience, ROE, and orders. Some decisions can become automatic or reflexive through repetitive training (e.g., immediate action drills for weapon malfunctions). A Marine must decide if the situation requires an immediate action or a deliberate plan. In many situations, hesitating to make a decision allows the threat to make the choice (i.e., not making a decision is making a decision to let the threat take the initiative). A

decision point is an event, area, or point on the battlefield where a tactical decision is required. Decision points do not dictate commander's decisions; they indicate that a decision is required, and they indicate when and where the decision should be made to have the maximum effect on friendly or threat courses of action. An understanding of the two types of decision making is necessary to make more effective decisions. The two types are analytical and intuitive decision making.

Analytical Decision Making. A Marine identifies several options for solving a problem, and then studies and compares them to arrive at the best solution. Marines generally use a specific process (e.g., the troop leading steps) in order to devise, compare, and choose a solution. When using the analytical decision-making process, questions such as these are used:

- What is the mission?
- What are the constraints and restraints (i.e., the things that must be done and the things that cannot be done)?
- What are the various means that can be used to accomplish this task?
- What are the advantages and disadvantages of each plan?

Intuitive Decision Making. A Marine assesses the situation to recognize a pattern or correlation with their experience or knowledge of a similar situation (i.e., heuristics). Once the pattern has been identified, or a comparable past situation has been identified, experience and judgment guide the individual in evaluating the key elements of the problem and rapidly determining a satisfactory solution. Intuitive decision-making questions are used, such as:

- Have I encountered something like this before?
- If so, were my previous actions successful?
- If not, what would have made them successful?
- Have I heard, read, or learned about a situation that was like this one?
- If not, is there any correlation—anything similar—to anything I have experienced?

Act. The goal of assessing the situation or planning is to act—to do something about what a person has observed, oriented on, and decided upon. Just as no decision is a decision, inaction is an action. Therefore, it is critical that Marines act with speed, so that the conditions are not thrust upon them by the threat. This is why General Patton once said, "A good plan, violently executed now, is better than a perfect plan executed next week."

Example of the OODA Loop in Application
The following is an example of the utilization of Boyd's OODA loop. A Marine deployed to a combat area is assigned to a fire team which is occupying an observation post with an assigned sector of observation.

Observe. The Marine maximizes the use of optics to observe the assigned sector, using a combination of binoculars and rifle optics. This allows the Marine to observe what the capabilities of the optics allow and engage to the capabilities of the weapon system. Soon, the Marine hears small arms fire near the observation post. This causes the Marine to observe the environment more intensely, while mentally reviewing the unfolding tactical situation. The Marine understands the

constraints and restraints on their possible actions through their orders, combat training, and training in the law of war, ROE, and rules for escalation on the force continuum.

Orient. As the tactical situation is reviewed, the Marine makes a rapid assessment of the situation, supported by previous experiences. As the Marine orients to determine the threat's potential to inflict harm, the mind considers many factors and questions. Some of these questions may include, "Is that a noncombatant? Are adjacent observation posts or my unit aware of the situation unfolding? Is the observation post in sight of the threat? What are the options? Who needs to know this and have they been told?"

Decide. As the Marine's mind enters the "decide" phase, previous experiences and training begin to shape the selected decision. The decision may include killing, contacting, capturing, or continuing observation.

Act. As soon as the Marine makes a decision, they quickly "act" and implement it. The OODA loop process is a cyclical one which repeats itself continually as Marines become aware of new changes in the operational environment.

FACTORS THAT SLOW THE DECISION-MAKING PROCESS

There are many factors that can impact the decision-making process. The factors discussed below are considered as the most common in slowing decision making.

Information Overload
Encountering or acquiring too much information inhibits an individual or unit from being able to synthesize, analyze, and interpret it all, and ultimately keeps them from being able to determine what is important.

Interruption of Tempo
A unit's tempo can be interrupted by external sources (i.e., the environment, the threat, or other actors) or may be self-induced. It is critically important that an individual or unit continually operates at a higher tempo than the threat and forces them to react instead of allowing them to be proactive. An unplanned interruption of tempo can cause an individual or unit from fully recovering, and allows the threat to gain momentum.

Unexpected Actions by a Threat
Marines generally base their plans and actions on predictable patterns—this facilitates intuitive decision making. However, if a threat or adversary is completely unpredictable, they will have a difficult time observing them and orienting on their actions, remaining in a reactionary mode.

Inability to Communicate
Clear communication is critical to the success of a unit's decision-making process. If individuals or units cannot communicate, then the collective decision-making process is generally slower and less effective. When clear communication of intentions or actions are not possible, Marines rely upon the commander's intent to drive actions.

Too Many or Too Few Options

Marines must continually anticipate the next tactical action to generate options. In doing so, it is important to limit the number of options or courses of action to choose from. Too many options may cause decision paralysis, additional time, and difficulty in determining which option to take, while too few may cause tempo to stall when problems are encountered.

Stress

Stress is an evitable part of military operations and has an impact on decision making. It is particularly recognizable in situations where Marines are engaged in combat. Marines must be able to recognize stress, its indicators, and impacts, and be familiar with ways to mitigate the adverse effects of stress to make timely and sound decisions. There are several types of stress that can be induced within the human body. Stress can be physical, mental, or emotional. These types of stress feed into and influence each other, which can affect decision making.

Physical. Physical stress or fatigue is caused by prolonged exertion. Most physical stressors relate to some form of pain stimulus. This can also be caused by the external environment, such as extreme cold, heat, or being wet for long periods of time. Physical stress can decrease a Marine's level of performance or even incapacitate them. The longer a Marine is exposed to such stimuli, the more it affects the Marine and begins to become a mental stressor.

Mental. Mental stress is the mind and mental processes being taxed by either external or internal factors. This is often caused by the inability to understand or comprehend unfolding circumstances. These stressors can either be placed on a Marine themselves through anticipation or apprehension, or they may be caused by unfolding events.

Emotional. Emotional stress can occur when people must consider or endure situations (either physical or mental) that they find difficult or unable to manage.

Response to Fear. When Marines experience fear, they react with the natural mental response of "freeze, flight, posture, or fight" that was discussed in chapter 10. The physical reactions of vasoconstriction and parasympathetic backlash can occur as a result, and are described as follows:

- *Vasoconstriction*. In anticipation of being wounded, a Marine's body can restrict the blood flow to the extremities to prevent the loss of blood. This is why someone who loses a limb in a blast bleeds very little. The lack of blood flow to the extremities also causes a loss of fine motor skills in the extremities and makes the person appear pale.

- *Parasympathetic backlash*. When a Marine is faced with a stressful event such as combat, their body directs most their energy to allow them to fight. Marines experiencing this reaction may feel that they have unlimited amounts of energy (or adrenaline). When the stressful event ends and the Marine feels safe again, the body reacts by redirecting energy back to the body for recuperation. This can make Marines feel both mentally and physically exhausted. During this part of the reaction, Marines are particularly vulnerable to attack. All leaders need to identify this and attempt to keep their Marines focused. This could occur during consolidation immediately after combat.

STRESS LEVELS

Lieutenant Colonel Jeff Cooper, US Marine Corps (retired), developed a system for describing the levels of awareness with color codes. The most important asset for surviving a lethal confrontation, is neither the weapon nor the martial skills; it is the ability for a Marine to maintain a combat mindset and act rapidly and effectively.

Cooper's Color Codes

The color codes allow Marines to identify the different states of awareness and levels of stress placed on them and members of their units. The ability to identify these levels allows Marines to mitigate negative biological and physiological effects. It is important for leaders to understand when their Marines are in a state that is wrong for the situation, and pull them into the correct state. A Marine who remains in a certain condition for extended periods of time, or is not mentally conditioned to function in an elevated state of arousal (i.e., stress), may be more susceptible to emotional impacts from traumatic events. Figure H-3 relates human performance to the various arousal levels of Cooper's color code. Leaders at all levels need to be aware of the mental condition of their Marines and take appropriate action to mitigate these conditions.

Condition White. A Marine in condition white is unaware, not alert, and oblivious to what is occurring around them. This state can be characterized as "daydreaming" or "preoccupied." Marines in condition white tend to walk around with their heads down, as if watching their own feet. This can happen when boredom, fatigue, or lack of discipline set in. They do not notice impending danger until it is right upon them. In this condition, the average heartbeat is approximately 60-80 beats per minute. In condition white, the only thing that may save a Marine is the failure of a threat's attack.

Condition Yellow. This is a relaxed state of general alertness, with no specific focal point. A Marine in this condition is not looking for anything or anyone specific; they simply have their head up and their eyes open. They are alert and aware of their surroundings. A Marine can maintain condition yellow indefinitely without adverse mental or emotional impacts. They do not expect to be
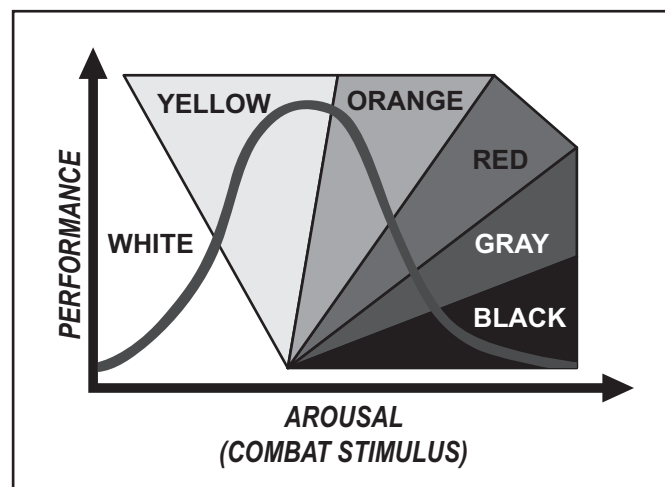

Figure H-3. Cooper's Color Code.

attacked, but they recognize the possibility. When their mental radar is triggered, they immediately escalate one level on the scale to condition orange. In condition yellow, the average heartbeat is approximately 80-115 beats per minute. Above 115 beats per minute, a person's fine motor skills begin to degrade.

Condition Orange. This is a heightened state of alertness with a specific focus. The difference between yellow and orange is that a specific target has been noticed, which may be an object or an individual. Something has caused the Marine to question whether a threat is present, so the object or individual must be assessed. As a Marine assesses the individual or object and believes it may be a threat, they start to play the "what if…" game in their mind to begin formulating a basic plan. This is how the Marine moves to the left in the incident timeline (i.e., by being proactive). If an incident occurs, the Marine has at least a rudimentary plan for dealing with the threat. The willingness to act on this rudimentary plan is the bias for action.

Condition Red. In condition red, a Marine is ready to fight. Marines may or may not actually be fighting, but they are mentally prepared to fight. In many circumstances when Marines go to condition red, they do not physically do anything at all. The entire process of escalating from yellow to orange to red, then de-escalating right back down the scale as the situation is resolved, occurs without any actual physical activity on the Marine's part. In condition red, a Marine's complex motor skills, visual reaction time, and cognitive reaction time are all at their peak.

While condition red is optimal for the possibility of a fight, Marines' fine motor skills begin to deteriorate in this condition. It is also mentally and physically taxing, and Marines cannot remain in this condition for long and remain effective. Some examples of fine motor skills that deteriorate are loading magazines, opening doors, applying flexi-cuffs, or breaking down a weapon, unless it is "muscle memory." Through intense, high-repetition training, a Marine can tune fine motor skills into "muscle memory." These skills must be rehearsed to be able to perform intricate tasks flawlessly without conscious thought, even when in condition red. This is not a lock-step process; in some cases, Marines can go immediately from yellow to red if a threat appears immediately. The key is that the Marine was mentally prepared for a conflict, and thus could act if the situation demanded.

Condition Gray. Gray is the area in between red and black in which Marines are engaged in action; it is also referred to as "auto pilot." When a Marine in condition red believes that a threat is real, they are waiting on the "mental trigger" that will cause them to have an immediate, positive, aggressive reaction (i.e., shift into condition gray). In condition gray, Marines have little ability to think, and may experience focus lock, tunnel vision, and the effects of adrenaline. They act primarily on their training and instinct, such as the performance of immediate action drills.

Therefore, it is critical that training should seek to push Marines to both their physical and mental limitations to promote "stress inoculation." Individuals typically cannot function for long in this condition without adverse effects and the risk of slipping into condition black.

Condition Black. Condition black is where a Marine is exposed to an event that is so stressful that they experience a catastrophic breakdown of mental and physical performance. Due to sensory overload, they stop thinking. This may be a result of lack of training or a lack of mental readiness. Leaders must identify a Marine who has gone to condition black immediately and take proactive

measures to prevent long-term adverse effects. A Marine in this condition is no longer combat effective. Furthermore, they may be a danger both to themselves and to their unit, and must be evaluated by medical professionals.

Application of Stress in Training

Understanding the mental and physical aspects affecting human behavior and physiological reactions is essential to a leader's training plan. Incorporating elements of stress in a realistic training environment prepares Marines for the physical and mental rigors of combat. Continual and increasing levels of stress in training also assist in inoculating Marines from the impact of life-threatening stress in the operational environment. Realizing how the human brain functions, how memories are developed in the brain, and how muscle memory (or automaticity) can be developed is critical to Marines' performance, and allows them to perform fine or complex motor skills without thinking about them. Studying the operational environment allows Marines to become familiar with threat motivations and intent, understand the local population's needs, and understand how their actions must always seek to affect the environment in a positive way.

Training plans that do not stress Marines and only train skills in a "condition yellow" mental state will only train Marines who are largely not capable of operating in conditions orange, red, or gray. Knowing the physical effects of stress is critical to recognizing the mental and emotional stressors and how they affect themselves, civilian populations, and the threat. Training with stress provides Marines the ability to more easily deal with, identify, cope with, and operate within stressful situations, as well as the ability to recognize the levels of stress in their fellow Marines.

Through realistic training and mental conditioning, Marines will be able to remain in condition yellow for sustained periods of time and shift into orange and red when necessary. Additionally, training and conditioning will enable Marines to identify that they are in condition red and allow them to shift back into orange or yellow.

ACCELERATING THE DECISION-MAKING PROCESS

Understanding the OODA loop allows Marines to increase the speed at which they orient and reorient based on new information, helping them to operate with a higher tempo than the threat. Marines must quickly transition between what they observe, how they interpret it, and what they do about it. When Marines make these transitions rapidly, they can be proactive and take advantage of opportunities the threat may not be aware of yet. Boyd referred to this as "operating within your opponent's OODA loop." When this happens, the threat moves too slowly and simply reacts to environmental changes that are out of their control. By contrast, their higher-tempo opponent operates offensively, making strikes. and forcing them to react. Both explicit and implicit guidance can affect the decision-making process.

Explicit Guidance

Explicit guidance refers to the act of articulating exactly what was observed, then going through a complete process of analyzing it, evaluating it, developing assumptions and estimates, and then fully communicating what was decided and providing detailed instructions to each person.

Another important aspect of explicit guidance is the use of proper operational terms. Using doctrinal terms to communicate the mission, tasks, purpose, end state, and other required guidance is critical to ensuring that all members of the force understand the mission and can communicate effectively. Furthermore, proper coordinating instructions give all individuals within a unit the same parameters and common knowledge.

Implicit Guidance

There are several methods of providing implicit guidance. Individuals may develop internal forms of implicit communication by training to such an extent that skills become "muscle memory." Units develop implicit guidance using:

- Implicit communication.
- Mission tactics.
- Commander's intent.
- SOPs.
- Rehearsals.
- Simplicity of plans and orders.
- Decentralization of command.
- Habitual relationships and familiarity working together as a unit.

Implicit Communication. This is possible when individuals or units work together for a period and develop similar ways of thinking, or the ability to nearly predict the actions of the others. An example of implicit communication is the relationship between twins or spouses. After living together (or training together) often enough, individuals understand one another enough to be able to predict each other's actions. Small units need to train closely together to develop these types of relationships. Implicit communication also involves conducting the proper coordination prior to a mission.

Mission Tactics. Mission tactics refers to assigning a mission to a subordinate without specifying how it must be accomplished. With mission tactics, the commander provides the mission and explains its purpose, and allows the subordinate to determine how best to accomplish it and to seize unexpected opportunities without waiting for orders or permission. Mission-type orders, which are composed of a task and purpose, are the focus of mission tactics, and contribute to a high tempo of operations.

Commander's Intent. The commander's intent relays the overall purpose for accomplishing the mission. It allows individuals and units to be flexible and adaptive, and to make decisions and act without having to be ordered to do so. Through using mission tactics and knowing the commander's intent, the individual and unit decision-making process is sped up.

Standing Operating Procedures. Standing operating procedures provide guidance for acting within a specific situation (not necessarily "reacting") and methods of accomplishing specific tasks. In other words, SOPs are instructions for individuals and units to take certain actions in specific situations. They allow individuals and units to bypass the decide phase, since SOPs define the action to be taken under certain conditions or in specific situations.

Rehearsals. Rehearsals build individual and unit muscle memory, implicit communication, and implicit command and control. Rehearsals build familiarity with the mission, enabling faster decision making and for the mission to be executed more smoothly.

Simplicity of Plans and Orders. Simple plans and orders facilitate faster orientation. Proper orientation can make the difference between a successful or unsuccessful decision and action. If Marines orient on the wrong things, it may allow the threat to get inside of their OODA loop; and therefore, be more successful.

Decentralization of Command. Decentralized command allows subordinate leaders to make decisions and act upon them without orders from HHQ, based heavily on the commander's intent in mission-type orders (i.e., mission tactics).

Habitual Relationships and Familiarity Working Together. Marines who are used to working and training together as a cohesive unit unconsciously develop an increased understanding of each other's habits, traits, and behaviors. Additionally, habitual relationships add to the understanding of one another's strengths and weaknesses. This familiarity allows a patrol or unit to operate more smoothly and fluently. whereas Marines who are unfamiliar with each other will require more direction or more developed orders for execution.

INTERRUPTING THE THREAT'S DECISION-MAKING PROCESS

The threat also uses the OODA loop decision-making process, though they may not consciously realize it. In many cases, the threat may not be as well trained or equipped as Marines. However, if they perform the steps of the OODA loop faster and with more information, they will possess a significant advantage. When operating inside a threat's OODA loop, Boyd stated, "It seems that the enemy is moving in slow motion." This perceived time-lapse creates a situation where leaders may need to control their tempo to wait for a more appropriate time to act. If the enemy is expecting an attack and the attack never comes, or occurs somewhere else, the commander has successfully interrupted the threat's cycle. Leaders must be able to control the tempo to keep the threat in a reactive state and constantly operate within their OODA loop. There are several ways that Marines can slow down the threat's decision-making process. In fact, as Boyd stressed, getting inside the threat's mind and decision-making process is the ultimate goal. By doing so, the threat is forced to deal with outdated or irrelevant information and will become confused, disoriented, and unable to function. Ways of slowing down the threat's decision-making process include:

• Continually increasing tempo.
• Disrupting the threat's communication or networks.
• Being unpredictable.
• Using deception.

APPENDIX I.
TRACKING FOOTWEAR

GENERAL TYPES OF FOOTWEAR

Footprint patterns are cataloged as western, heeled, flats, cleats/lugs, and barefoot (see figure I-1). Each type of print on the track should be recorded, if possible. Several key prints may make it possible to remain on the spoor without recording every print. Relying on memory is not an efficient or safe way to record the various types of prints found on a follow-up.

| Western | Heeled | Flats | Cleats/Lugged | Barefoot |
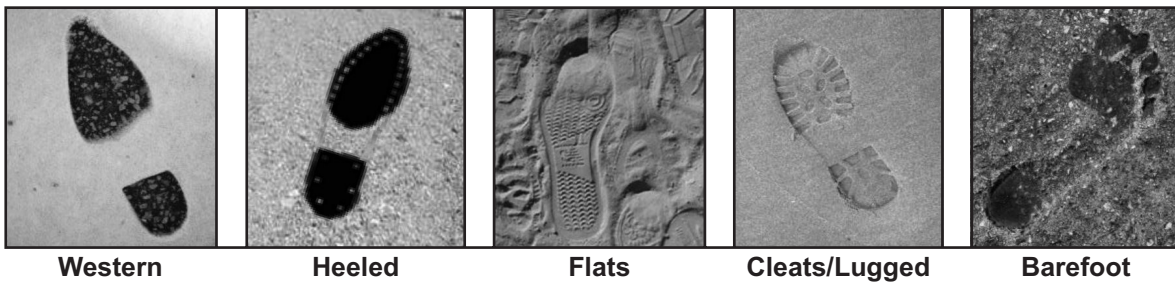
Figure I-1. General Types of Footwear.

TOOLS AND TECHNIQUES FOR RECORDING FOOTPRINT EVIDENCE

Each set of prints should be given a nickname to personalize them. A nickname makes it easier for the tracker to relate different individual traits and habits displayed by the quarry. Trackers use multiple tools to record prints during a follow-up (see figures I-2 through I-5). These tools include the use of:

- Footwear style quick-reference cards.
- Spoor cards.
- Footwear sketches.
- Photographs.

Trackers can use the quick-reference card in figure G-2 to match the print styles of different footwear to reduce confusion and simplify recording. For example, since there are many different styles of athletic footwear, a tracker may match the print and record "A-6."

	1	2	3	4	5	6	7	8
A								
B								
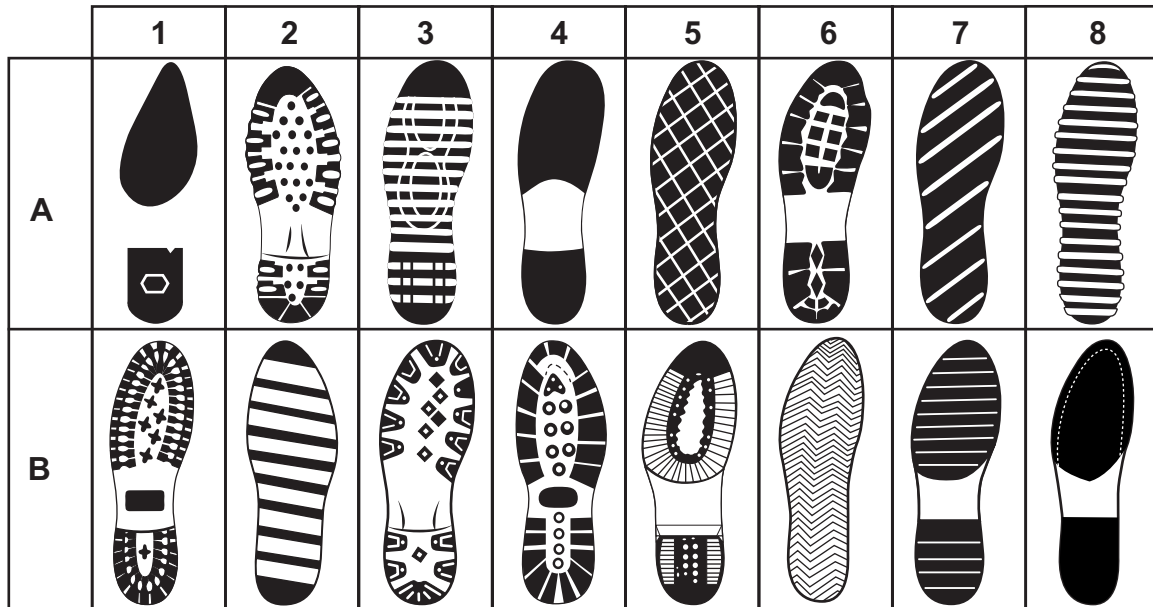
Figure I-2. Footwear Style Quick-Reference Card.

NICKNAME _____
DATE _____
PLACE _____
GRID/REF _____
DIRECTION _____
TYPE _____
STYLE _____

PRINT MEASUREMENTS:
A _____
B _____
C _____
D _____

HEEL STRIKE DETAILS

Figure I-3. Spoor Card.
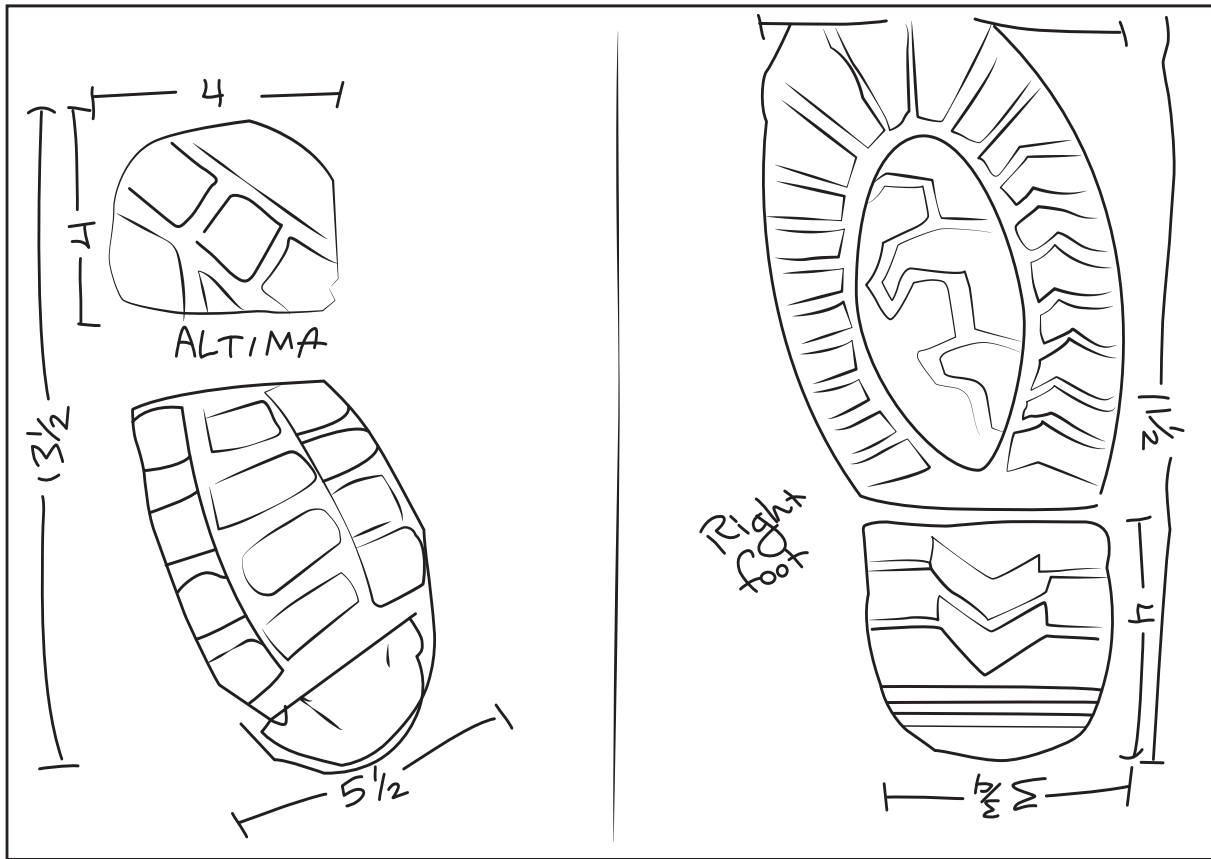
Figure I-4. Footwear Sketch.
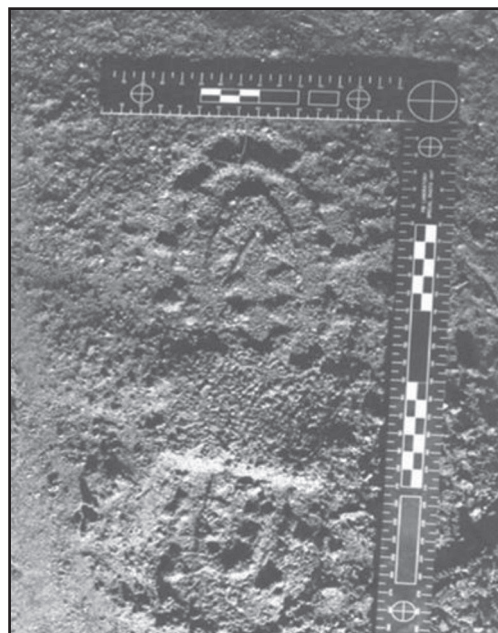
Figure I-5. Footwear Photograph.

APPENDIX J.
EXAMPLE TRACKING REPORT

TRACKING REPORT DESCRIPTION AND PURPOSE

The tracking team gathers facts, interprets relevant information, and makes assumptions during the follow-up to improve their understanding. Facts and assumptions should be recorded as they are identified. This information is critical during the follow-up to reduce the time-distance gap, and is summarized in the tracking report (see table J-1) from the events recorded in the tracking log (see table J-2). The tracking log assists in creating the tracking report after the follow-up based on both facts and assumptions.

Facts are the actual empirical evidence and forensics gathered throughout the follow-up that are fed into the intelligence cycle. Examples could include the types of footwear the quarry is using (refer to appendix I), the direction they were moving, or litter they left.

Assumptions are derived from the facts and draw reasonable conclusions about the quarry's actions, behaviors, and intentions. Identifying the location, number, direction, age, type, and amplifying data (i.e., LNDATA) is the most accurate method to collect information during a follow-up, as well as the most efficient way to transmit it. This information constitutes the majority of the final tracking report, which is the basic tracking report plus any attachments of value (refer to chapter 9).

Table J-1. Comparison between Tracking and SALUTE Reports.

TRACKING REPORT/LNDATA		SALUTE REPORT	
LINE	ITEM	LINE	ITEM
1	DATE/TIME	1	SIZE
2	LOCATION	2	ACTIVITY
3	NUMBER	3	LOCATION
4	DIRECTION	4	UNIT/UNIFORM
5	AGE	5	TIME OBSERVED
6	TYPE	6	EQUIPMENT
7	AMPLIFYING REMARKS	7	AMPLIFYING REMARKS

Completing the Tracking Report
<u>Line 1:</u> Date and time that the information was recorded and sent to HHQ.

<u>Line 2:</u> Location. Grid location of the current LNDATA. The first one is the location of the initial commencement point. There are several ways to determine this. It may not be the incident site, but could be a point somewhere along the track line that is clear of contamination.

<u>Line 3:</u> The number of quarry that are being tracked.

<u>Line 4:</u> Determine the initial direction of the quarry's flight using compass cardinal direction.

<u>Line 5:</u> Determine the age of the spoor.

<u>Line 6:</u> The type of track (e.g., military or civilian, type of shoes worn).

<u>Line 7:</u> Amplifying remarks. Most pertinent amplifying remarks come from the spoor cards and tracking log. Others may include the composition of the group—males/females, the presence of dogs or other animals, and the use of mobility aids such as bicycles or walking sticks. When possible, this should include verification of whether the quarry possesses weapons, tools, or packs.

Specific Information to be Included in the Tracking Report
Specific information to be included in a tracking report includes—

- *Mission or operation*. State the designated mission or operation in which the tracking team performed their tasks.
- *Designation*. State the designation or call sign of the team or the patrol supported.
- *Operating area*. State the general area in which the track was conducted.
- *Map references*. List all associated maps, aerial photos, or GRGs that were used.
- *Team composition*. List all members of the team and their responsibilities.
- *Mission*. State the mission and why the patrol was deployed.
- *Times*. State the time tracking began and ended, to include whether the team was inserted or extracted.
- *Ground*. Give a detailed description of all of the ground over which the team tracked spoor.
- *Day log*. Describe all events that occurred during the day and all information gathered.

Information Gained. State all information gained on the quarry:

- Strength.
- Weapons.
- Ammunition and explosives.
- Load and equipment.
- Age of the tracks from the beginning and end of the follow-up.
- Morale of the quarry.

Recommendations. Provide recommendations for future tracking.

Enclosures. Attach any supporting documents, such as spoor cards, photographs, and sketches.

Table J-2. Example Tracking Log.

Incident #	Facts	Assumptions
1	Found 7.62mm casings.	Quarry armed with former soviet style weapons.
2	Found (6) sets of different footprints.	Threat operating in small groups.
3	Found (1) set of prints (shoulder width apart), aerial spoor of burned trees seen behind footprints. Direction of fire is to the northwest of grid ms20561237.	Quarry may be armed with RPGs, site may be possible POO site for launching rocket attack.
4	Found multiple sites where individuals were lying in the prone position perpendicular to a large trail in vicinity of ms20571488.	Quarry well-trained to conduct complex ambushes.

GLOSSARY SECTION I. ABBREVIATIONS AND ACRONYMS

AO .... area of operations

BMNT ....beginning of morning nautical twilight

C2 ....command and control
CAS .... close air support
CASE ....VAC casualty evacuation
CBRN ....chemical, biological, radiological, and nuclear
CI .... counterintelligence
COC .... combat operations center
CREW .... counter radio-controlled improvised explosive device electronic warfare
CTP ....common tactical picture

EENT ....end of evening nautical twilight
EOD .... explosive ordnance disposal

FRAGO ....fragmentary order
FSCM .... fire support coordination measure

GPS .... global positioning system
GRG ....gridded reference graphic

HHQ..higher headquarters
HUMINT .... human intelligence

IED ....improvised explosive device
IO ....information operations
IPB ....intelligence preparation of the battlespace

JFO .... joint fires observer
JTAC ....joint terminal attack controller

m ....meters
MAGTF ....Marine air-ground task force
MCRP ....Marine Corps reference publication
MCTP ....Marine Corps tactical publication
MCWP ....Marine Corps warfighting publication
METT-T ....mission, enemy, terrain and weather, troops and support available—time available
mm .... millimeters

NAI ....named area of interest
NVD .... night vision device

OODA ....observe, orient, decide, act
ORP .... objective rally point

PIR ....priority intelligence requirement

RCIED .... radio-controlled improvised explosive device
ROE .... rules of engagement

SALUTE .... size, activity, location, unit, time, and equipment
SOP ....standing operating procedure

TTP ....tactics, techniques, and procedures

UAS .... unmanned aircraft system
US .... United States

GLOSSARY SECTION II. TERMS AND DEFINITIONS

adversary—A party acknowledged as potentially hostile to a friendly party and against which the use of force may be envisaged. (DOD Dictionary)

ambush—A surprise attack by fire from concealed positions on a moving or temporarily halted enemy. (MCRP 1-10.2)

area of operations—An operational area defined by a commander for land and maritime forces that should be large enough to accomplish their missions and protect their forces. Also called **AO**. (DOD Dictionary)

area reconnaissance—A directed effort to obtain detailed information concerning the terrain or enemy activity within a prescribed area such as a town, ridge line, woods, or other features critical to operations. (MCRP 1-10.2)

bypass—To maneuver around an obstacle, position, or enemy force to maintain the momentum of advance. Previously unreported obstacles are reported to higher headquarters. Bypassed enemy forces are reported to higher headquarters. (Part 1 of a 2-part definition. MCRP 1-10.2)

checkpoint—A predetermined point on the ground used to control movement, tactical maneuver, and orientation. (MCRP 1-10.2)

combat operations center—The primary operational agency required to control the tactical operations of a command that employs ground and aviation combat, combat support, and logistics combat elements or portions thereof. The combat operations center continually monitors, records, and supervises operations in the name of the commander and includes the necessary personnel and communications to do the same. Also called **COC**. (MCRP 1-10.2)

combat patrol—A tactical unit that is sent out from the main body to engage in independent fighting. It may be to provide security or to harass, destroy, or capture enemy troops, equipment, or installations. Operations include raids, ambushes, and security missions. (MCRP 1-10.2)

common tactical picture—(See DOD Dictionary for core definition. Marine Corps amplification follows.) The current depiction of the battlespace, including current, anticipated, or projected and planned disposition of hostile, neutral, and friendly forces. Also called **CTP**. (MCRP 1-10.2, part 2 of a 2-part definition)

contact patrols—Those combat patrols that establish and/or maintain contact to the front, flanks, or rear by contacting friendly forces at designated points; establishing contact with a friendly or enemy force when the definite location of the force is unknown; and maintaining contact with friendly or enemy forces. (MCRP 1-10.2)

counterintelligence—(See DOD Dictionary for core definition. Marine Corps amplification follows.) The active and passive measures intended to deny the enemy valuable information about

the friendly situation, to detect and neutralize hostile intelligence collection, and to deceive the enemy as to friendly capabilities and intentions. (MCRP 1-10.2)

decision point—(See DOD Dictionary for core definition. Marine Corps amplification follows.) An event, area, or point in the battlespace where and when the friendly commander will make a critical decision. (MCRP 1-10.2)

detainee—Any person captured, detained, or otherwise under the control of Department of Defense personnel. (DOD Dictionary)

engineer reconnaissance—The gathering of specific, detailed, technical information required by supporting engineer forces in order to prepare for and accomplish assigned missions. (MCRP 1-10.2)

explosive hazard—Any material posing a potential threat that contains an explosive component such as unexploded explosive ordnance, booby traps, improvised explosive devices, captured enemy ammunition, and bulk explosives. (Part 1 of a 2-part definition. DOD Dictionary)

fire support—(See DOD Dictionary for core definition. Marine Corps amplification follows.) Assistance to elements of the Marine air-ground task force engaged with the enemy rendered by other firing units, including (but not limited to) artillery, mortars, naval surface fire support, and offensive air support. (MCRP 1-02)

fire support coordination measure—A measure employed by commanders to facilitate the rapid engagement of targets and simultaneously provide safeguards for friendly forces. Also called **FSCM**. (DOD Dictionary)

force protection—(See DOD Dictionary for core definition. Marine Corps amplification follows.) Actions or efforts used to safeguard own centers of gravity while protecting, concealing, reducing, or eliminating friendly critical vulnerabilities. Force protection is one of the six warfighting functions. (MCRP 1-10.2)

human intelligence—A category of intelligence derived from information collected and provided by human sources. Also called **HUMINT**. (DOD Dictionary)

improvised explosive device—A weapon that is fabricated or emplaced in an unconventional manner incorporating destructive, lethal, noxious, pyrotechnic, or incendiary chemicals. Also called **IED**. (DOD Dictionary)

intelligence cycle—A six-step process by which information is converted into intelligence and made available to users. The six steps are planning and direction, collection, processing and exploitation, production, dissemination, and utilization. (MCRP 1-10.2)

intelligence requirement—(See DOD Dictionary for core definition. Marine Corps amplification follows.) Questions about the enemy and the environment, the answers to which a commander requires to make sound decisions. Also called **IR**. (MCRP 1- 10.2)

irregular warfare—(See DOD Dictionary for core definition. Marine Corps amplification follows.) Irregular warfare favors indirect and asymmetric approaches, though it may employ the full range of military and other capacities, in order to erode an adversary's power, influence, and will. Also called **IW**. (MCRP 1-10.2)

kill zone—That part of an ambush site where fire is concentrated to isolate, fix, and destroy the enemy. (MCRP 1-10.2)

Marine air-ground task force—The Marine Corps' principal organization for all missions across a range of military operations, composed of forces task-organized under a single commander capable of responding rapidly to a contingency anywhere in the world. The types of forces in the Marine air-ground task force (MAGTF) are functionally grouped into four core elements: a command element, an aviation combat element, a ground combat element, and a logistics combat element. The four core elements are categories of forces, not formal commands. The basic structure of the MAGTF never varies, though the number, size, and type of Marine Corps units comprising each of its four elements will always be mission dependent. The flexibility of the organizational structure allows for one or more subordinate MAGTFs to be assigned. In a joint or multinational environment, other Service or multinational forces may be assigned or attached. Also called **MAGTF**. (MCRP 1-10.2)

meeting engagement—A combat action that occurs when a moving force, incompletely deployed for battle, engages an enemy at an unexpected time and place. (MCRP 1-10.2)

military deception—Actions executed to deliberately mislead adversary military, paramilitary, or violent extremist organization decision makers, thereby causing the adversary to take specific actions (or inactions) that will contribute to the accomplishment of the friendly mission. (DOD Dictionary)

named area of interest—(See DOD Dictionary for core definition. Marine Corps amplification follows.) A point or area along a particular avenue of approach through which enemy activity is expected to occur. Activity or lack of activity within a named area of interest will help to confirm or deny a particular enemy course of action. Also called **NAI**. (MCRP 1-10.2)

nongovernmental organization—A private, self-governing, not-for-profit organization dedicated to alleviating human suffering; and/or promoting education, health care, economic development, environmental protection, human rights, and conflict resolution; and/or encouraging the establishment of democratic institutions and civil society. (DOD Dictionary)

operational environment—A composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander. (DOD Dictionary)

passage of lines—An operation in which a force moves forward or rearward through another force's combat positions with the intent to move into or out of contact with the enemy. (DOD Dictionary)

priority intelligence requirement—(See DOD Dictionary for core definition. Marine Corps amplification follows.) An intelligence requirement associated with a decision that will critically affect the overall success of the command's mission. Also called **PIR**. (MCRP 1-10.2)

profiling—A method of proactively identifying enemy personnel or threats through human behavior pattern analysis, recognition, and other contextual cues, such as the geographic area and the atmospherics of a time and place. *(Proposed for inclusion in the next edition of MCRP 1-10.2)*

raid—(See DOD Dictionary for core definition. Marine Corps amplification follows.) An attack, usually small scale, involving a penetration of hostile territory for a specific purpose other than seizing and holding terrain. It ends with a planned withdrawal upon completion of the assigned mission. (Part 1 of a 3-part definition. MCRP 1-10.2)

rally point—An easily identifiable point on the ground at which units can reassemble and reorganize if they become dispersed. (Part 1 of a 2-part definition. MCRP 1-10.2)

reconnaissance—A mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or adversary, or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area. (DOD Dictionary)

route reconnaissance—A directed effort to obtain detailed information of a specified route and all terrain from which the enemy could influence movement along that route. (MCRP 1-10.2)

rules of engagement—Directives issued by competent military authority that delineate the circumstances and limitations under which United States forces will initiate and/or continue combat engagement with other forces encountered. Also called **ROE**. (DOD Dictionary)

search—A systematic reconnaissance of a defined area, so that all parts of the area have passed within visibility. (DOD Dictionary)

security—Measures taken by a military unit, activity, or installation to protect itself against all acts designed to, or which may, impair its effectiveness. (Part 1 of a 3-part definition. DOD Dictionary.)

signals intelligence—Intelligence derived from communications, electronic, and foreign instrumentation signals. Also called **SIGINT**. (Part 2 of a 2-part definition. DOD Dictionary)

site exploitation—A series of activities to recognize, collect, process, preserve, and analyze information, personnel, and/or materiel found during the conduct of operations. (DOD Dictionary)

tactical questioning—The field-expedient initial questioning for information of immediate tactical value of a captured or detained person at or near the point of capture and before the individual is placed in a detention facility. (DOD Dictionary)

task organization—(See DOD Dictionary for core definition. Marine Corps amplification follows.) A temporary grouping of forces designed to accomplish a particular mission. Task organization involves the distribution of available assets to subordinate control headquarters by

attachment or by placing assets in direct support or under the operational control of the subordinate. (MCRP 1-10.2)

zone reconnaissance—A directed effort to obtain detailed information concerning all routes, obstacles (to include chemical or radiological contamination), terrain, and enemy forces within a zone defined by boundaries. A zone reconnaissance normally is assigned when the enemy situation is vague or when information concerning cross-country trafficability is desired. (MCRP 1-10.2)

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2-10   Intelligence Operations

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3-32   Marine Air-Ground Task Force Information Operations

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2-10A   MAGTF Intelligence Collection 3-01E Sniping

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8-10A   Unit Training Management Guide

8-10B   How to Conduct Training

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10-10D   MAGTF Explosive Ordnance Disposal

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12-10B   Urban Operations

12-10C   Jungle Operations

12-10D   Desert Operations

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